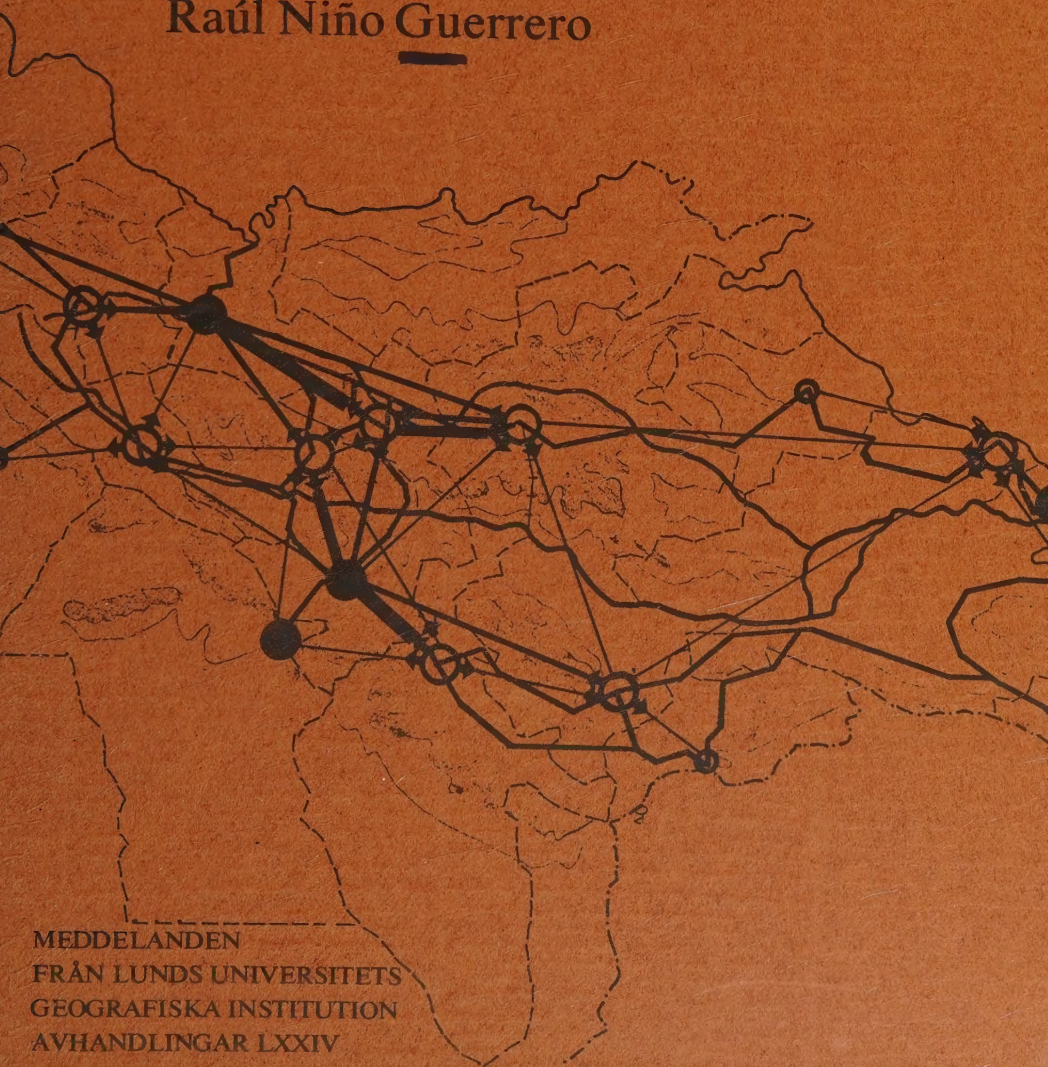


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Rural To Urban Drift Of The Unemployed In Colombia

Raúl Niño Guerrero



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Raúl Niño Guerrero

AB LUNDA-KOPIA 1975



To Ann-Lis

I wish to thank my thesis advisor, Professor Olof Nerdström,
for his patient and wise help.

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LIST OF BOOKS

INTRODUCTION

1. The Rural to Urban Migration of the Unemployed in Colombia as a Problem of Spatial and Non-Spatial Structures.

The present study is focused on the rural to urban migration of the unemployed in Colombia. There are two important fields of interest that can be singled out around this problem:

The first and very important field includes all the non-spatial type problems which have the nearest relation to the rural to urban migration and which have an immediate connection with the resultant spatial structures. This field includes not only those problems found at the point of departure of the migrants, e. g. land ownership structure, lack of services in the countryside, but also includes the problems found by the peasants at the points of arrival, e. g. urban unemployment, lack of housing, lack of services.

The main problems of non-spatial type which have near relation to migration are:

1. The ownership concentration of very large parts of the cultivable land in the different regions of the country in the hands of very few landowners, while most of the peasants are reduced to very small plots, due to the artificial scarcity of land.

2. The very high rate of unemployment in the different rural regions due to the fact that the large farms are kept unused and due to the surplus of labour on the very small farms.

3. The very high rates of unemployment in the urban areas that the migrants find when they move, due to the very low capability for creating jobs that exists in those areas.

4. The almost total lack of services and infrastructure in the countryside, like schools, medical and dental services, rural roads, electricity, housing programmes, etc.; the lack of all this is the most noticeable fact in the countryside, making for a very wide differentiation between rural and urban areas, especially between large urban areas and the countryside.

5. The fact that most of the migrants to the urban areas continue to be unemployed in their new places; unemployment obstructs the access to the services that the urban areas can provide, as the services in the urban areas are almost totally based upon direct payment. This concerns services such as schools, hospitals, etc.

The second important field of interest consists of the series of spatial implications that the rural to urban migration has: It consists, like the other large field of interest, not only of the spatial structures in the countryside, and in the regions that have emmigration, but it also comprises the spatial differentiation which exists among the different urban areas and which changes acceleratedly as the process of immigration takes place.

The main problems of spatial type which have near relation to migration are:

1. The isolation of the peasant families who are scattered over the countryside with consequent great difficulty in being provided with those services which require a certain population base and an 'effective demand', which the isolated peasants can not exert.

2. The isolation of the peasants by long distances to central places. If the distances were not so large, these central places could regularly provide the countryside with all kinds of inputs of industrial origin, and also regularly absorb the products of the countryside.

3. The spatial division of the countryside into very large regions of unused land in large farms, the latifundia, and very small farms where most of the peasants live and which are so small, that they can barely produce for the subsistence of the peasant families; these farms are called minifundia.

4. The regional differentiation taking place in the countryside, where some very specific regions have most of the contributions with emmigrants to the urban areas.

5. The regional differentiation taking place in the system of urban areas, where some cities have attracted more of the rural and interurban migrants than others.

6. The very specific relations of spatial type between the changes taking place in points 4 and 5.

7. The changes occurring at the level of system of urban areas, where the population of the urban areas becomes disproportionately concentrated to a few areas.

8. The concentration of the vital industrial production, of the few job openings and of most of the specialized services in four large urban areas. The overconcentration in space of the vital activities, contrasts with the backwardness of the rest of the urban areas. It is very marked the lack of a connected and scalated interrelation of activities at the different levels of urban areas.

9. The wide spreading of the slum areas in the large cities as a direct consequence of the great flows of the unemployed to those areas.

2. Areas within the analytical fields which are of special interest for this study.

In this study we are especially interested in a complete analysis at the spatial level of the migratory problem; of the non-spatial type problems closely related to migration, we are going to look just at one of them, the employment related variable. Due to the importance of the employment problem, - as most of the peasants are "surplus" unemployed and as they migrate to urban areas where there is large open unemployment, - this variable is one of the most important for understanding the problems behind the migration of the peasants and for understanding the problems that this migration creates in the urban areas.

Looking into the migration of the unemployed peasants, is important not only for arriving at an understanding of the problem as it is now, but for learning about the possibilities for the future for:

1. Creation of jobs, considering the feasibility that the countryside has for being reversed from being an emigration, to an immigration area. We concentrate to the countryside our research about the possibilities of creating jobs, after arriving at the conclusion throughout the study, that the urban areas in Colombia in the future, as well as now, have a very restricted, almost inexistent capability for giving employment to the several millions of unemployed.

2. Integration between the countryside and the urban areas in a spatially functional way, so that the large differences in all aspects of development between these two very opposite poles can be shortened. And in such a way the countryside can be changed to become an alternative as a place where the unemployed migrants can be helped to resettle with all the conveniences and services that the urban areas now have.

The countryside should also be made a secure place to live in for the many unemployed peasants who continue living there. Otherwise these peasants would be soon counted among the numbers of unemployed and squatters in the urban areas.

3. Creation of an alternative to the process of slum spreading in the large urban areas.

Through a process of integration between the employment we propose to create in the countryside, and the service possibilities the urban areas have,

and concentrating the fusion of these jobs and service possibilities to minor urban areas, - areas which should have an active integration in terms of services, employment type possibilities, and communications to the larger central places -, the opportunity is created for the ending of the slum areas in the large cities, by giving the slum dwellers the possibility of resettling in the new development centers.

3. Division of the Study

This study is divided into three parts with six chapters and one appendix:

PART ONE: DEFINITION OF THE PROBLEM.

CHAPTER ONE: SPATIAL AND NON-SPATIAL MODELS OF MIGRATION OF THE UNEMPLOYED.

Chapter One has been devoted to a theoretical analysis of the relevance that the migration of the rural unemployed has in relation to the most important structures and to the most important problems of the country.

The problem is presented here with the help of a model using set theory in order to show the most important relations of political, social, technological and economic character, that influence the process of migration of the rural unemployed to urban areas where there are very high unemployment rates.

Using this model it is possible to identify those variables that are more closely related to the problem under study, and their interrelation with other variables which influence the drift of the unemployed, but which are not of immediate importance. The model will thus permit the problem to be seen in perspective and will also permit us to make an analysis of the very complex series of actions and reactions from different directions that have influence upon the migratory problems and which are to be studied in the following chapters.

Also presented in this chapter is an analysis of the migration and urbanization problems in a worldwide perspective in order to find out the points of convergence and divergence between the migration processes in the industrialized and the backward countries. Likewise an analysis of the most important theories of migration which have been developed in the industrialized countries especially England, USA and Sweden is presented. A critic of the differences in magnitude, importance, and causality between migra-

tion in the industrialized countries and migration in the backward ones as Colombia is also presented.

Great differences existing between the two groups of countries make it necessary for us to concentrate our attention on aspects of the migration problem other than those most often studied in the industrialized countries.

A very central point of the theoretical presentation of the problem consists also of the introduction of two complementary models of spatial type that are to show: 1. The most important divisions of the Colombian urban-units according to their importance within the system of central places. 2. The most important types of rural settled areas. 3. The dynamic different types of migration flows between the different types of urban areas, that are rapidly changing the spatial structure of the country.

The spatial models are to be tested throughout the study in order to find out the most exact dimensions and interrelations of the different parts of the system.

PART TWO: MEASURING THE MIGRATION OF THE UNEMPLOYED.

CHAPTER TWO: DEMOGRAPHIC CHANGES IN COLOMBIA.

Chapter Two shows the main demographic characteristics of the urban and rural population during the last years, especially the very important problem of the very high increases in the numbers of the population and the repercussions of this growth upon the host of great problems existing in the country.

CHAPTER THREE: THE COLOMBIAN URBAN AND RURAL POPULATION CONCENTRATION PROCESS:

This chapter will show in detail the most important spatial characteristics of the rural and urban population. The main purpose is to find out what is the structure formed by the great number of different urban and rural units, what the main linkages within this structure are, what the elements that make the main nodes so important are, what the most important changes happening throughout this structure during the last thirty years are, and what the main features of the population spatial structures to be expected in the future are.

CHAPTER FOUR: MEASUREMENT OF MIGRATION FLOWS.

This chapter deals with the most important of the dynamic migration flows between the different types of centres in the Colombian spatial structure, and that in the course of a few years are contributing to transform the country from being predominantly rural into urban.

Special attention is to be given to the examination of the migration flows between the different regions and also within the regions. The problem of rural to urban migration is undoubtedly the most interesting of the variables in this chapter.

The characteristics of the migration flows are also to be given much attention, the main ones being, sex, age, direction of the migration, and educational background of the migrants.

PART THREE: THE MIGRANTS AND THE EMPLOYMENT PROBLEM.

CHAPTER FIVE: THE UNEMPLOYMENT PROBLEM.

The most important characteristics of the unemployment problem both rural and urban, and the effects this problem has on the migrants before and after they have migrated, is to be analyzed in this chapter.

Special stress will be laid on looking into the more probable developments of the unemployment problem within the next decade. It is perhaps here, in this part of the study, where the whole series of migration flows studied in the previous chapters acquire a real meaning. It is the prospects of employment in the future, the most important factors determining if the large migration flows taking place in the country are worthwhile for the migrants and for the country as a whole.

CHAPTER SIX: THE LAND OWNERSHIP STRUCTURE.

The problems of the land, that in the case of Colombia have so near relation to the unemployment and migratory problems will be studied in this last chapter. The two large misformations of the Colombian rural spatial and socio-economic structure - the minifundia and latifundia concentrations - will be given special attention throughout the chapter.

The study of the existing structures of the countryside is important, as the countryside may prove to be one of the best alternatives for the creation of jobs in the future.

Appendix One, consists of the tentative proposals for a rearrangement of the spatial structures of the countryside in order to find employment for part of the several millions of unemployed in the country. Through the re-settlement of migrants in small urban-rural towns it would be possible to give them facilities to build by themselves a minimum of urban type services for their own use, at the same time creating typical agricultural jobs for them in the nearby countryside.

These types of proposals are presented only as a sketch, in appendix form, due to the extension and complexity of them; in most cases, a single question would require very large studies.

The long and incomplete series of proposed changes throughout the whole system, here serves the purpose of emphasizing the incredible host of great problems, that are or that should be contained in the decision by a country, to develop through a modernization of the structures of the countryside. Very complex reforms needed are usually simplified in one word, as *ujamaa*, or *comuna*, which perhaps makes it more difficult to understand, why these 'simple' ideas meet with great problems when being realized.

4. Data Sources of this Study

The statistical background of this study comes almost entirely from different statistical bureaux and planning offices belonging to the Colombian administration.

There are several very large handicaps in the background data we have for our study;

1. There is very low reliability in the data used; this problem has to do with obstacles of financial, physical and other characteristics that exist in the collection of statistics in Colombia today.

2. Almost all of the data used are out of date. Many of our analyses of the present situation are based on extrapolations and deductions from the scant existing data sources.

3. There are not available coherent sets of data that permit a straightforward analysis of most of the problems presented in this study. As a result, it has been necessary to proceed by detours, gathering small bits of information from many different sources, in order to present the analyses. This fact has imprinted its mark on the study.

4. There is a large problem, analyzed somewhere else in this study, and it is the fact that the data in Colombia is collected accordingly with admini-

strative political units that in most cases have little to do with the real concentrations of the population. Sometimes large concentrations of the population are divided by the limits of these regions; sometimes the administrative regions delimit very different types of human agglomerations giving as a result averages which obscure the diversity of the situations.¹⁾

We must notice, however, that the statistical material used here is, of no different quality than that found in most of the backward countries where the gathering of data is currently done on a sporadic basis. For researchers who have to work in the backward countries, it is thus indispensable to cross through this barrier.

In spite of the difficult statistical handicaps, it has been possible through patient work to get a clear notion of the main characteristics of the problems analyzed and a near picture of their size.

Yet it must be pointed out that great care must be exerted when interpreting the results of the analyses, as the ground is not so solid.

For population analyses, we have used mainly the population census data for the years 1938, 1951 and 1964. A new census is scheduled for 1974, but the results of it may take some years to publish.

Other important data sources used for chapters One and Five are the studies by the Colombian National Planning Agency - Departamento Nacional de Planeación -:

1. La Población en Colombia. Realidad, Perspectivas y Recomendaciones, 1969.
2. Modelo de Regionalización. Jerarquización de los centros de más de 10,000 habitantes, 1969.

A very important guide for this study, with respect to the problems of migration in Colombia, is:

Nelson Richard R., Schultz Paul T., Slighton Robert L., Structural Change in a Developing Economy. Colombia's Problems and Prospects. Princeton U. Press, 1971.

The problems of employment in Colombia have been revised in a recent, very extensive study by the International Labour Office: Towards Full Employment. A Programme for Colombia Prepared by an Inter-Agency Team Organized by the ILO, Geneva, 1970.

The most important study that we have used on land ownership structure problems is: Comité Interamericano de Desarrollo Agrícola, Colombia.

1) See, Salomonsson Owe, Some Problems of Data Identification, Data Inter-
eration and Data Organization in Urban and Regional Information Systems.,
Hägerstrand & Rubinfeld, eds. 1972, p. 63.

Tenencia de la Tierra y Desarrollo Socio-Económico del Sector Agrícola.
Washington, 1966.

This study is based on an agricultural census from the year 1960. A new agricultural census was started in the year 1970, but the results published until now are too fragmentary to be used in this study.

PART ONE: DEFINITION OF THE PROBLEM

CHAPTER ONE: SPATIAL AND NON-SPATIAL MODELS OF MIGRATION OF THE UNEMPLOYED

1. The Rural to Urban Drift of the Unemployed.

This study of migration in a backward country has its origin in the author's experience as a city planner in Colombia, working in different slum areas in Bogotá and doing research on the extent of the housing problem.

Slums in Colombia are, like in many other backward countries, those parts of the urban areas which are growing at the fastest rate. They are inhabited mostly by peasants coming from the countryside.¹⁾ Most of the slum areas do not appear on the city maps because they are not recognized by the authorities as legitimate parts of the urban areas. They are most often built on land which has been invaded without any deal with the owners. There is plenty of land around the cities, where large numbers of houses could be built, but this land is subject to economic speculation by its owners.

The penniless migrants do not have other resource than seizing the land to be able to settle in the urban areas. Slum dwellers must often fight against the police for the right to remain on their plots. They also make clandestine makeshift connections to the city nets for obtaining electricity and water.

This is a frustrating experience for many citizens. The authorities are unwilling, not prepared and economically unable under the present circumstances to help to settle in the cities the large numbers of people arriving every year.

The most important characteristic of the large migration movement to the urban areas is the fact that it takes place in spite of the very high unemployment rates found in the destination areas. Unemployment is widespread not only among the migrants but also among the urban residents.

Nearly 10,000 new jobs are created every year in the urban industrial sector, while the number of peasant migrants ascends to 200,000 people per year. However, these 10,000 new jobs are not given to the migrants, but mostly to those among the initial urban population who are unemployed and who may have previous skill in industrial work.

There would be nothing to cause worry if the large number of migrant peasants were being absorbed in the industrial and service sectors instead of being forced to remain idle in the cities. One should then be glad for their entry to the developed sectors of the economy. Meanwhile the leaving of the "surplus" peasants would be giving a possibility for the "rationa-

1) Abrams Charles, 1964.

lization" of their former lands into large farms, which could make use of all sorts of modern technologies.

This process would precipitate a badly needed complex interrelation between rural and urban areas for the exchange of agricultural products and technological products. Our interest in studying migration in such an economy, would not probably have more than an academic interest.

One question becomes important at this point: even if life in the urban shantytowns is so hard for the peasants who migrate, and even if unemployment is so high and widespread, why do they continue streaming into the cities?

Is not there, as in any other process of diffusion of innovations, any mechanism of communications feed-back¹⁾ that tells the peasants about the difficult conditions in the urban areas. Or are there other undetected factors that have such strong influence upon the peasants, causing migration in spite of strong stop signaling from the cities?

We will make three propositions with respect to this:

1. Clearly the question has relevance and should be studied in detail. Experience shows that at present there is not any hope for the incoming migrants to the urban areas. It is not possible for the country to create meaningful jobs at an adequate rate to cope with the problem that the migrants constitute.

A significant factor that worsens the effects of the rural to urban migration is that the process of industrialization is low and fragmentary. With increasing rates of automation brought about by the technological processes imported from the industrialized countries, the problem that is tackled is, most of the time, not how to occupy the idle sectors of the labour force, but how to do the same work with the less number of workers.²⁾

2. The unemployment problem in Colombia, as in most of the backward countries, is not a cyclic but a chronic and expanding one.³⁾

3. Land invasions and spreading of the shantytowns in the cities have to do with the inability of the migrants to pay to have something better. But how are to pay when they are most of the time unemployed?

On the other hand, costs of trying to settle the migrants through the existing governmental programmes are so high, that the authorities can only cope with the orderly rebuilding of a shantytown, while at the same time many new shanties are started by new migrants at other places. Low results of the governmental programmes are also due to the inability of the migrants to pay back the government in the case of low cost housing programmes, due

1) Gould Peter R., 1969.

Also, Torsten Hägerstrand. The Diffusion of Innovations. N.D.:

Also same author, 1953.

2) International Labour Office. 1972(2).

3) Turnham David, 1970.

to their unemployment. Yet, it has not been concern of the government to create employment for the migrants.

The spatial problems brought about by the rural to urban migration in the case of Colombia are:

1. Of a very complex nature and cover wide aspects of both urban and rural areas.
2. Always found in connection with the great unemployment problem in the country. This factor is probably the most important characteristic found throughout our study. The employment problem is going to be considered the most important parameter regulating our view of the rural to urban migration, not only for the analysis of the present spatial structure of the country, but also for every proposal for future rearrangements of this structure.

Artificial lack of land for most of the peasants, at the same time as overconcentration of land in large unused farms, has as effect the very high unemployment and underemployment in the countryside. According to the findings of this study more than three fourths of the rural labour force in Colombia can be considered unemployed, the unemployment rate being more than twice that found in the urban areas. The existing land ownership structure constitutes not only a social, economic and political problem but also, and very importantly, a problem of spatial type.

Concentration of large numbers of unemployed peasants in the urban areas is also a problem of spatial type.

Very fast concentration of the urban population and of the urban activities in a few very large cities constitutes a problem of spatial type. This process of concentration of activities and people diminishes the possibilities for growth for medium and small central places. Their surrounding countryside is left without economic expansion by lack of increases in the amount of goods exchanged with these central places. And in this way it is reinforced the process by which the peasants migrate.

Changing of residence for the large number of migrants means not only changes in the spatial arrangements of the economic activities of the country, but also in the spatial location needs of transport nets, living areas, services, workplaces, and all kinds of vital functions.

In the following section we are going to revise the most important migration models in existence, and we are also going to look at the differences in approach that the employment problem parameter imposes on us when treating the rural to urban migration in Colombia.

2. Differences between our focusing on the unemployment-migration approach and the current theories of migration.

The most outstanding geographic theories of measuring and explaining migration, for example those of Reilly (1929), Zipf (1946), Stouffer (1940), Hägerstrand (1957), have been developed in order to explain the migration problems in the most developed industrial countries of the world as USA and Sweden. The interest of the scientists has been focused on problem areas that have relevance to the development of the industrialised countries and which apply to the specific problems existing in those countries. It may be found that in the case of the backward countries we must focus on some other areas which are of no particular interest in the industrialised countries.

The theories that have been developed, are all intended to analyze the spatial structure of migration fields "as a separate question in population geography, leaving out the set of factors which govern the many other migration differentials".¹⁾

Most of the theories of migration are based on the First of Ravenstain "Laws" from 1885 which stated that "... most migrants go only a short distance. As the distance from a certain place increases, there are fewer migrants who have moved from that place".²⁾

The "First Law" of Ravenstain was later on refined. E.C. Young in 1924 had developed an hypothesis that "the relative number of migrants to an area would vary directly with the "force of attraction" of the receiving area and inversely with the square of the distance between the source and terminal areas."³⁾

Then we have the formulas of Kant (1946)⁴, Reilly (1929)⁵, Stewart (1941, 1947, 1948)⁶ and Zipf (1946)⁶ which are all based on Joung's hypothesis.

1) Hägerstrand Torsten, 1957, p. 112.

2) Bogue Donald J., 1969, p. 756.

3) Theodore R. Anderson, 1955, pp. 287-291.

Joung's formula is $\text{Migration} = a \text{ constant} \frac{\text{Attraction } X}{\text{Distance } Y}$

4) Kant's formula is $y = ax^{-b}$, where y is the number of migrants and x the distance. "It showed that the exponent b received the value -2 in accordance with the hypothesis of Young" Hägerstrand 1957, Op. Cit. p. 113.

5) Reilly's formula for the law of "retail gravitation" is, $P_1 P_2 D^{-2}$ where P1 and P2 means population and D is distance. Hägerstrand 1957, p. 118.

6) Stewart's and Zipf's formula is, $P_1 P_2 D^{-1}$

"That Stewart and Zipf have chosen to use D^{-1} instead of D^{-2} might be a result of actual regional differences between American and Europe concerning the relation of distance on migration and related phenomena" Hägerstrand 1957, Op. Cit. p. 118.

See also, Anderson Theodore, 1955.

Finally Stouffer (1940) and Hägerstrand (1957) are two outstanding exceptions to "distance and migration" theories. For Stouffer there is "no necessary relationship between mobility and distance. Instead he introduces the concept of intervening opportunities. He proposes that the number of persons going a given distance is directly proportional to the number of opportunities at that distance and inversely proportional to the number of intervening opportunities".¹⁾

Hägerstrand sees migration as the result of diffusion processes which make that "the amount of migration in relation to a given population and the composition of the migrants are intrinsically independent of the particular destinations the migrants of that population happen to prefer".²⁾ Hägerstrand's model "explains the regional contrast of the actual scene enabling us to regard the direct migration as a sample-like embodiment of a living mass of private lines of communication. These have in the long run been erected by the migrations themselves, the indirect and the direct together."³⁾

Measuring migration fields has by now a long tradition and has been established as one of the most important fields of interest in migration theory. However, we are interested in another aspect of the migration problem and this has to do with the relations between migration and the existence of jobs or real opportunities at the points of destination of the migrants.

The existence of jobs or real opportunities at the points of destination seems to be taken for granted in the industrial countries when measuring migration movements. Perhaps the problems of employment at the point of destination exist also in minor scale in the industrial countries,⁴⁾ but measuring the migration field has been more attractive to the geographers.

1) Samuel A. Stouffer, 1962, p. 71.

Stouffer's formula is, $y = k \frac{\Delta x}{x}$

Where y = number of migrants to a certain zone

Δx = number of opportunities within the zone

x = number of opportunities between origo and the middle circle of the zone

2) Hägerstrand 1957, p. 111.

3) Ibid., p. 148, Hägerstrand's migration formula is,

$Mo/o-R = k \frac{VR \cdot IR}{PR}$, "The number of migrations from o/o to R during t_i-t_j

is directly proportional both to the vacancy-density of R and to the number of existing private contacts between R and potential migrants of o/o at the time t_j ." (page 152).

4) Royal Ministry for Foreign Affairs, Stockholm 1974, p. 68.

Hägerstrand puts it in this way: "A considerable number of investigations have been carried through in Sweden concerning the choice of destinations of migrants. The moving population has in most cases been treated as an aggregate and the emphasis has been laid on the geographical distribution of all movements - the migration field - which can be attributed to a delimited area, for example a rural parish or a town. A differentiation in regard to say age-groups, occupations, replacement and prime movements had been highly desirable but has been carried through only occasionally, owing to the fact that the sources despite their richness provide very heavy working in those respects."¹⁾

The movements of population, in the studies of migration fields in the industrialised countries, occur between areas of less, towards areas of more economic growth and opportunity. By economic opportunity areas is meant areas where employment offers exist. In the case of what Hägerstrand calls prime migration movements, when migration takes place to new stations, for ex. in the case of overseas migration from Asby, Sweden to USA, the migrants coming from depressed areas, find jobs at their place of destination.²⁾ This is not the case of the migrants in the backward countries of to-day.

In the specific case of Colombia migration occurs from depressed rural areas towards urban areas where the opportunities are non-existent, and where unemployment is also widespread. This is the greatest difference found in migration movements in the backward countries with respect to the industrialised advanced ones.

In the following paragraphs we are going to give a few examples of the suppositions present in the model theories applied in the industrialised countries with respect to employment distribution in areas of migration. The application of the same theories in the case of the backward countries would give biased results, because these theories have not been developed to show the great unemployment affecting the migrants in the urban areas.

1. Zipf's theory for example is a refinement of Joung's hypothesis. Zipf proposed that when unemployment and incomes are uniformly distributed over the areas, the variations in what Young called "force of attraction" should be the population size of the area.³⁾

However, when we study rural to urban migration in a country like Colombia, we discover that:

1) Hägerstrand Torsten, 1962.

2) Hägerstrand Torsten, 1957.

Also Jacobson Arne, 1969.

3) Anderson Theodore, 1955, p. 287.

a. Incomes are not uniformly distributed over the areas. They are concentrated in the urban areas, in a few of the urban areas and again, among a few people in the urban areas.

b. Unemployment is not evenly distributed in the different areas; even if it were found that it were evenly distributed, then in the case of rural to urban migration we would have to abstain from equating rural to urban unemployment, due to the very wide differences in types of employment. In other words, the skills the peasants have when they migrate to the cities do not have any application in their new places of residence.

Statements as the following by Bogue, having a wide application in the industrialised countries, can not be extended to the backward ones: "under modern conditions, the migrants who leave farms for cities are not greatly handicapped in adjusting to city life if they come from prosperous agricultural communities that have made available to them a good secondary school education; if their families are able to subsidize them temporarily while they get started and if there are no other factors discriminating against them."¹⁾

2. Stouffer's theory says that the number of migrants to an area is proportional to the number of existing opportunities. In the application of his model he equates the number of opportunities to the number of apartments to let at the place of destination. Although this assumption may hold true for measuring migration fields in the industrialised countries, we must notice that if applied to a backward country like Colombia, it would give a wrong view. Probably in USA the changing of location can be roughly equated to moving to a new opportunity, or in other words to a new job. In the case of the backward countries migration takes place to places where there are not any jobs waiting for the migrants; migration takes place even if there are no apartments for them, and in many cases the migrants must squat. The observation we made in the case of Zipf's theory with respect to the origin of the migrants and the kinds of jobs they can compete for, has also validity in the case of Stouffer's theory.

3. In Hägerstrand's theory the number of migrants are related to the number of contacts previously established, by prospective migrants, in the possible destination places.

In the case of the backward countries one could use Hägerstrand's formula to predict migration fields, and one very probably would find out the

1) Bogue, Donald J, 1969, p. 796.

right number of migrants, corresponding to the right number of previous contacts. But the important factor in our case is that migration takes place without the existence of job vacancies at the destination places. For example in Ciudad Guayana in Venezuela, "... practically every migrant has known somebody in the city before he arrived."¹⁾

However, "The unemployment rate is an essential element in the population projections, which are derived from projections of the city's economic growth. The migration survey shows that the continuing inflow of migrants is not the main determinant of unemployment; if the inflow were cut by half or even stopped completely, unemployment would still be high."²⁾

Hägerstrand states: "The density of vacancies can be said to determine the shortest step possible for a migrant in a given occupation. But on the other hand, there is no necessity for him to take just the shortest step. And also it must be remembered that change of occupation is quite common in connection with migration... We must suppose that most migrants have arranged work place and dwelling already before leaving the old place. To a migrant the destination is not vaguely defined as a unit of statistical registration (parish or town but exactly as a certain station... Exceptions are probably only some young people who leave on a venture for the very big cities. Now every station is already under control of some 'gate keeper': employer, landowner, houseowner, civil servant or the like. A movement must have been prepared through contact and agreement with the gate keeper."³⁾

Our contention in this case is that migration in a backward country may be directed by the previous contacts, established by would-be migrants; this is in complete agreement with Hägerstrand's theory. However, vacancies with respect to employment, housing, social services etc., are not existing in the urban areas. The migrants are thus left in a situation very nearly that of a Crusoe in the city,⁴⁾ due to the effect of the existing social conditions upon them. It becomes evident then that rural to urban migration in the backward countries is not directed by the existence of real opportunities for the migrants in the urban areas. It becomes evident that there are other factors conditioning the urbanization processes. We are go-

1) MacDonald, John Stuart, Migration and the Population of Ciudad Guayana in Lloyd Rodwin, ed., 1969, p. 116.

2) Ibid, p. 121.

3) Hägerstrand, Torsten, 1962, pp. 18 and 19.

4) Hägerstrand, Torsten, Migration in Sweden, 1957, p. 131.

ing to examine in the next section the factors that can be identified as very important to the migration processes.

3. Rural Migration to Unemployment Urban Areas Within the Frame of Underdevelopment.

We have shown in the last section that there are some special factors which condition the process of rural to urban migration in the backward countries in a special way and which make this process something very different from the migration processes in the industrialised countries.

Migration takes place under a complex process of underdevelopment which conditions it. To understand somewhat better its causes, its effects, and what to expect in the future, it is going to be presented here a model of rural to urban migration in Colombia within its framework of underdevelopment. The model has been elaborated with the help of some elements of set theory. It is a non-spatial explanation which will facilitate very much our understanding of the spatial aspects of the problem that will be seen in the following chapters. Moreover, it will make it easier to locate the changes we propose for the future.

There are two questions we would like to have especially focused by the model:

1. Why is it so that there is so large unemployment in the Colombian urban areas? What are the main causes behind this great problem?
2. Why is it so that such a large number of the rural population migrate to the cities in spite of the unemployment problem in those areas?

These two questions have a near relationship to each other. Moreover, they aptly define the limits of this study. We are in this study focusing the spatial implications of the questions.

The larger structural aspects covering the two questions have been given increasing attention by economists and sociologists in Latin America. Our model uses some of the most important points of view on these aspects, in order to define the structural boundaries of the two questions.

One of the most important aspects on these two questions is that they are not unique with respect to the development of Colombia. The generality of these problems has been recognized on the whole of the Latin American continent¹⁾ and the most important characteristics of these problems exist in what is called the Third World.²⁾

1) Quijano, Aníbal, 1970. Also, Nun, José, 1970.

2) Bairoch, Paul, 1973.

Both in the analysis of the urban mismatch between the size of the active labour force and the offer of jobs, and in the analysis of the problems behind the large migration of the peasants to the urban areas we can find three main problem fields:

1. The character of dependence of the development process in Latin America.
2. The explosive development of the demographic structure of the countries in the continent.
3. The social, political and economic internal structure of the countries.

We can show the localization of these problem fields by series of sets and subsets.

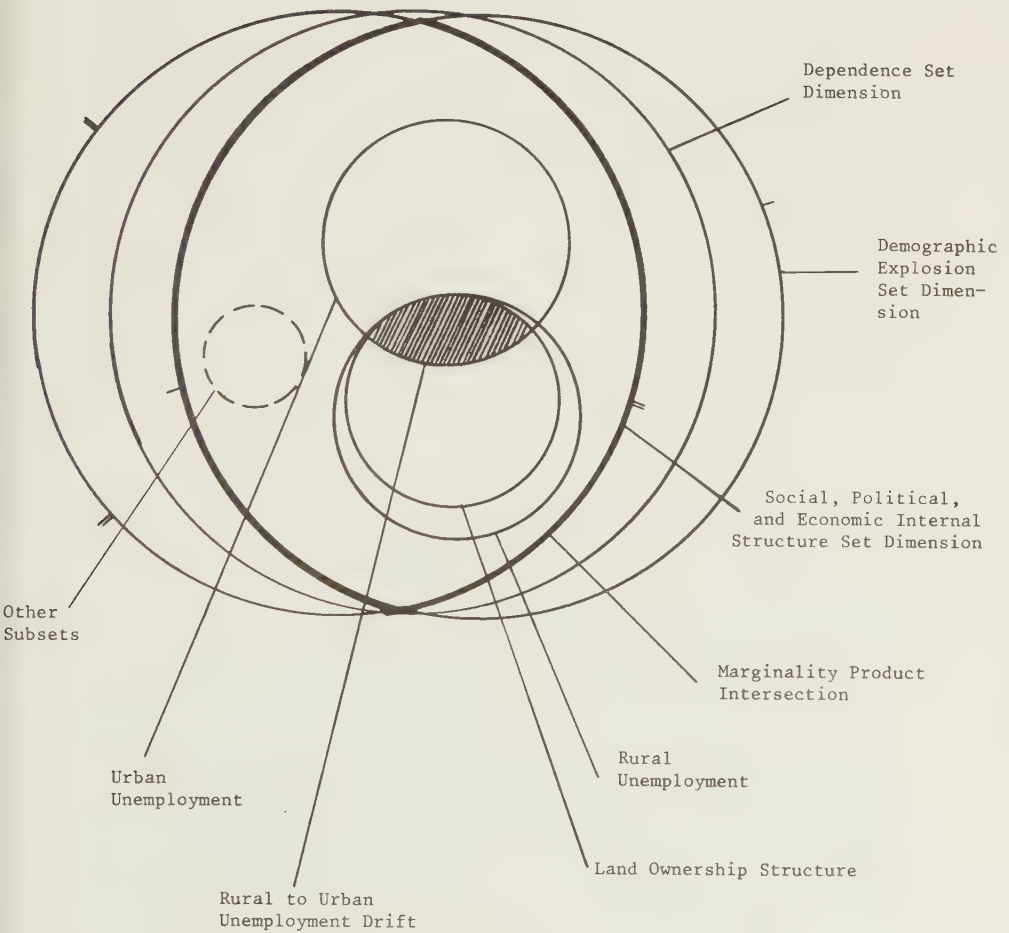
In the graph the three main problem fields have been converted into a series of sets that intersect each other. The intersection of the three main sets produces what we call the marginality product intersection; this product intersection is by itself a concrete situation, in which are contained the series of specific subsets that constitute the object of our study:

1. The urban unemployment subset;
2. The rural unemployment subset;
3. The land ownership structure subset;
4. The intersection of this series of subsets, called the rural to urban unemployment drift. This intersection constitutes the very core of our study.
5. Other subsets that are located in the area, but which are of no interest for our study.

In the next section we are going to revise the series of sets, subsets and intersections present in our model and also to explain their topological location and importance for the model.

Figure 1

A Model Set of Rural Migration To Unemployment Urban Areas in Colombia.



3.1 The Character of Dependence of the Development Process

This question concerns the effects shaping the urban and rural spatial structures of the fact that very important locational decisions with respect to the development of the country are taken in other countries, which are in a more advanced and dominant position, for example USA.

This characteristic of being inferior technologically and economically, and therefore dependent on other countries is constant for Colombia and for the rest of the continent.

Effects of this dependence are felt very clearly and strongly when it is analyzed:

1. The character of concentration of the industrial production in a few cities.
2. The types of industries being developed, especially the advanced degree of technological specialization that they exhibit.
3. The disconnection and mismatch between new industries and the employment absorption needs.
4. The effects of industrial localization upon increasing the differences between urban and rural areas. And also increasing the differences between the regions.

Two aspects of the character of dependence on the most advanced countries will be examined now:

1. Managerial and financial dependence.
2. Technological dependence.¹⁾

Managerial and Financial Dependence

The main effects of this type of dependence upon the backward country are:

1. Organization and orientation of the industrial development becomes a function of the requirements and needs of the developed major country or countries that have a dominant position.
2. Types of goods being produced are those that give easy gains, mostly to satisfy the higher income levels of the population. These types of goods have a very reduced demand, but their production can be sustained thanks to the monopoly position in which the foreign firms usually operate.
3. Types of products introduced into the markets of the backward country are those consumed in the dominant countries from which they come. A new

1) Quijano, Anibal, 1970, p. 34.

type of demand is established which is not precisely adapted to the type of real necessities of most of the population of the backward country at the present stage of development.

4. A very great proportion of the foreign investment in Colombia goes into mines or oil. 58 per cent or 112 out of the 193 million dollars invested from USA in Colombia in 1950¹⁾ were in the oil industry. In 1970 about 48 per cent or 334 out of 691 million dollars invested were in the oil industry.²⁾

5. Production of capital goods that takes place through foreign investment, concerns those goods that are not any longer competitive in the advanced countries. They are located to the country because of the lower prices per work input, fiscal protection, etc.

6. Foreign enterprises are localized only in those urban areas which have a developed infrastructure and where there exists the scarce demand for the type of foreign goods they produce. In this way the industrialization process takes place in very few of the largest cities. This factor has a very wide repercussion not only on the urban areas that develop in this way and on their hinterland, but also on the urban areas which do not get the foreign industries. The four largest cities had in 1966³⁾ 80 per cent of the industrial workers of the country and 80 percent of the industrial value added in 1965.⁴⁾ The other 20 per cent of industrial jobs and industrial value added were to be shared between the remaining 8 cities between 100,000 and 230,000 inhabitants and the 18 cities between 30 and 100,000 inhabitants that existed in 1965.

7. Foreign enterprises are often the leading and most decisive for the economy, and the national industry is always dependent upon them.

8. Large parts of the native savings are co-opted by the foreign industries for their own expansion.⁵⁾

9. Large amounts of capital are taken away from the country in legal and illegal ways in form of benefits, patents, royalties, overpricing, etc.⁶⁾

10. Interests of the foreign enterprises have become the leading factors for the national policy programmes related to:

1) Wurfel, Seymour W, 1965, p. 9.

2) Instituto Interamericano de Estadística. Situación Económica, 1972.

3) Manrique, Rodrigo, 1970.

4) United Nations. ECLA, Economic Bulletin for Latin America, 1971,(1) p. 74.

5) Lindqvist, Sven, 1969, pp. 61-77.

6) Vaitsos, Constantine V, 1970 (2).

Also by same author, 1971.

- 1) Development of industries
- 2) Development of the urban areas and
- 3) Development of the different regions.

In this way the tendency to concentration of growth in a very few enclave centers, leaving the rest of the country without attention is reinforced.

Technological Dependence

The main effects upon the backward country of this type of technological dependence are:

1. Industrial production depends on technology which is always imported and localized in a few urban areas. Because of this type of enclave isolated development the technological knowledge and experience does not become spread among the population. This problem is reinforced by what Quijano calls the "technological secretness mechanism", which consists of the difficulty of using technology due to the very expensive patents, and royalties, etc.

2. Imported technology is always highly labour saving and highly capital intensive, because it has been developed for the needs of the more developed countries. Work can thus be provided for very few of the labour force. In Colombia, there were not more than 255,000 workers in the manufacturing industries in 1970, out of a total of 5.5 million workers, and their number had increased by no more than 10,000 per year in the past, while the labour force had increased by 200,000 a year.¹⁾

3. Due to the fact that the main part of the industrial plants, spare parts and a large amount of the raw materials are imported, the industrial development that takes place consists of isolated industrial plants with very few or inexistent linkages with the rest of the industry or agriculture.

3.2 The Demographic Growth Dimension Set

This is the second main area set in our model. Although the demographic growth dimension set should normally be considered a subset of the internal social and economic structure set, and although in fact one of the studies of migration in Colombia revised here²⁾ shows very near connection between

1) International Labour Office, 1970. Appendix 3 p. 3.

2) Nelson, Richard R, Shultz, T. Paul and Slighon, Robert L., 1971.

both, we feel we are rightly justified in giving the demographic dimension, the status of category of analysis. This is due to the fact that the problem has developed such impressive forms in Colombia, where the population growth rates are among the highest in the world.

Since the problem from being a subordinate one has become very urgent, it must be located in an independent and important place with respect to the determinants of underdevelopment.

The most important aspects of the demographic growth set are:

1. Population growth rates are in Latin America, and in this case in Colombia, increasing at the fastest rates in the world. This growth has been especially rapid after World War Two. From a population growth rate of 1.9 per cent between 1900-50, Latin America has increased to 2.9 per cent in the period 1950-70. This very fast growth in the last period can be compared with that for the same period for Africa, which was 2.3 per cent, and that for Asia which was also 2.3 per cent.¹⁾

The very considerable strains the fast demographic growth imply for the development process are evident in the following comparison by Bairoch:

"in the nineteenth century the population of the countries that are now industrialized increased by only 0.8 per cent per year, which meant that the population would double in 86 years and be multiplied by 2.2 over a period of a century (compared with a thirteenfold increase over a century, given the present rates of population growth in the developing countries.)"²⁾

2. Rapid annual increases of the active population. The very fast population growth has as a consequence the fastest increases in the active population in Latin America with respect to the rest of the world. In the period between 1950-70 Latin America has increased the active population at a rate of 2.5, compared with 1.6 per cent for Africa and 1.7 for Asia.³⁾

"The growth rate of the active population of the industrialized countries during their 'take-off' stage (excluding countries to which Europeans emigrated) can be estimated at between 0.5 and 0.6. Today this rate exceeds 2 per cent in the developing countries and will stay at around 2.5 per cent over the next two decades, however, much is done to check population growth (for it must be remembered that any change in the birth rate takes between 14 and 18 years to affect the pattern of the active population)."⁴⁾

For a country like Colombia with very fast increases in the active population it is a very urgent task to match this growth with new jobs. If we consider the case of industry for example, in order to have the same percent-

1) Bairoch, Paul, 1973, p. 8.

2) Ibid., p. 9.

3) Ibid., p. 10.

4) Ibid., p. 10.

tage of jobs with respect to the total number of jobs in the country, it must increase labour absorption by 2.5 per cent per year. This large task becomes something like running on the same spot.

The very rapid growth of the population is here, as in all the backward countries, a great obstacle to development. It would be impossible to find 500,000 new jobs every year, if there existed a comprehensive national policy of labour absorption. The fact that such a policy does not exist in Colombia complicates the problem much more. It becomes evident that very drastic changes must be executed in the nativity field, previous to or accompanying other programmes of development.

3.3 The Social, Political and Economic Internal Structure Set

This is a very large and important set composed essentially of the historical development of the most important levels of relations among Colombians. There are very wide class differentials with respect to accessibility to positions in the political social and economic structures. This situation introduces very wide differences concerning the access to the different services the country may or may not offer to its citizens. These wide differences in their turn have very wide spatial repercussions, as it will be seen.

The social, political and economic structure set is of a very dynamic character, and the spatial effects of this set structure upon reorganizing the population of the country are very strong. If we were to stop suddenly the series of actions and reactions produced by this set with its differentiation effects upon the population and we made a cross section of these differentiations, it would be found a series of imbalances and inequalities among the population:

3.3.1 Inter-Urban internal inequalities.

We can see on the urban scene a very wide range of structural differences among the population with very special repercussions on the spatial structure of the urban areas.

There are very wide contrasts in life standards between the different social classes. The wealthier people of the country are concentrated in a few cities. Consequently most of the investments in industry and infrastructure are centralized in four urban areas. As a result, the rest of the

urban areas have become secondary centers for the intermediary provision of services and goods. Most of the services provided by these secondary cities are not but sources of hidden forms of unemployment due to the low productivity, quality and usefulness of those services to those producing them and to the country as a whole.

Concentration of industrial production and infrastructural development in a few cities has by itself a very strong tendency to become accentuated and perpetuated. For the country as a whole this concentration produces tensions not only at a rural-urban level but is also very important in the system of urban areas, producing large migration tendencies from the secondary cities to the developed centers and dividing drastically the country in a few developed urban areas with their hinterland and a large number of extensive, unfunctional urban areas with their hinterland.

The large slum areas in the large cities are ascertainment of:

1. The large migratory attraction the large developed areas exert upon the rest.
2. The fact that the number of jobs offered by these areas are not enough to cope with the migration movements.

The wide polarization of development which exists is largely opposite to a more graded distribution of the employment creation power in the different urban areas of the country. As a result of this, a few large cities are growing at uncontrollable high rates, while the absence of many more intermediate cities to service their surrounding potential hinterland and to divert migrants and other sorts of growth from the large urban areas is noticeable.

As a comparison concerning the lack of development of the intermediate level of cities we notice how Colombia which is both in population and size roughly three times that of Sweden in 1965 had only 18 cities between 30 and 100,000 inhabitants compared with the 47 cities in this category found in Sweden.¹⁾

3.3.2 Intra-Rural internal inequalities

The most noticeable distortion in the economic structure with immediate effects on the spatial structure of the Colombian countryside is the ownership by few landowners of vast portions of the land. The spatial results of this economic structure of the countryside are the concentration of large

1) European Free Trade Association, 1973, p. 44.

number of peasants in small plots which have very low production capacity—although their productivity per hectare is much higher than on the very large farms—while large stretches of land are unused.

As a thumb rule we can say that the Andean mountain farms are predominantly minifundia, while the fertile valleys of the rivers and the low plains are latifundia areas. This important problem will be studied in detail later on.

Effects of the very wide differentiation of the land ownership structure are very difficult to single out spatially. This is due to the concurrent homogeneous result of underdevelopment at all levels of the rural areas.

There are very low standards of living in minifundia areas in spite of very intensive utilization of the small plots in those areas. There are also very low standards of living in latifundia areas due to the underutilization of the land and also due to the fact that the profits obtained from the large farms are "exported" to the large urban areas to be used there, as most of the rich landowners live in those areas.

The largest shares of national income from foreign trade have traditionally been the sale of agricultural products, especially coffee. But the profits stay in the urban areas to subsidize the consumption of those living in those areas.

Clearly, in both latifundia and minifundia areas, there is an almost total lack of all sorts of social and infrastructural services. There is an almost total lack of schools and electricity; housing is of the lowest quality, and there are no hospitals or dentists serving the countryside;¹⁾ there are very few rural roads and very few central places serving the rural areas. Most of these areas are isolated and far away from the cities.

Total lack of services and infrastructure and great scarcity of land for most of the peasants, a scarcity which is artificial, have the critical and important spatial effect, of inducing the overflow of unemployed peasant population to migrate and seek new opportunities in the cities.

1) For statistics about doctors and their location according to the size of the urban areas see Table 4, Chapter 3.
For a review of the rural educational problem, see Section 3.2, Chapter 4.
As for the rural housing conditions, in 1964 there were 924,000 units (U.N. 1974 p. 735), and an estimated deficit of about 500,000 units (Stycos and Areas, eds., 1966, p. 175).
Of the existing housing units in 1964, 26 % had only one room (against 12 % in the urban areas), only 10 % had water piped inside (70 % urban), only 20 % had some form of toilet (80 % urban), and only 8.5 % had electricity (83 % urban). (U.N. 1974, p. 735).

3.3.3 Urban-Rural internal inequalities

The third set of internal imbalances is the very wide polarization of the standards of living of the population in the countryside compared with those living in the urban areas.

Backwardness of the countryside can be said to be general both in latifundia and minifundia areas, in each case due to particular reasons. There is not, however, a general underdevelopment of the urban areas. The amount of services existing for some of the inhabitants of the largest cities is not very different to those found in the most advanced countries like Sweden. Access to those services is mostly restricted to the high social classes.

Access to the specialized services found in the urban areas is not more than very occasional for the unemployed peasants who migrate. Nevertheless, the great differences between cities and countryside exert a great attraction upon the peasants to migrate. But the subjective appreciation by the peasants of their success possibilities in the cities has little to do with reality.

3.4 The Marginality Subset Product

The intersection of the three important sets we have studied up till now:

1. The dependence set.
2. The demographic growth dimension set.

3. The social, political and economic internal structure set, produce in their turn a subset product. We are going to call it "The Marginality Subset Product". Marginality as a theoretical concept has been developed mostly by Latin American analysts to explain why in the backward countries increasing numbers of the population are left aside in participation in the active life of their communities. Not only are they excluded from work possibilities, but also from the services that exist.

In our concept, it is the Marxist analysts¹⁾ who have elucidated this question best and shown the character of permanence of this exclusion. The permanence of the problem, the harshness of it, and the increasing strength of it in the backward countries are in contrast with the analysis by Marx of the periodicity of unemployment and his use of the term "Reserve army of

1) Quijano, Anibal, 1970.
Also, Nun, José, 1970.

wage-laborers"¹⁾ for those caught in the cyclic periods of unemployment in the most developed countries of his time.

"Marginality", says Quijano, "is a concept that tells about the indirect fragmentary and unstable way of insertion in which are found large segments of the population, within the tendencies predominant in the capitalist way of production of nowadays. As a consequence of this insertion, these segments of the population become the most dominated level of the social strata. This insertion manner is by itself a social situation, that is analytically independent of those individuals that suffer it, and is grounded - although it does not end there - in the most recent tendencies of the ways of production. In this way, the meaning that these groups of the population have for the global character of the way of production, derives from their being subdued to this social situation."²⁾

The permanent character of marginalization of large groups of the population is the product subset that contains the real problems of migration to the urban areas we are going to see in this study. The category of marginalization includes not only the large numbers of people that are almost permanently unemployed but, due to the type of hidden unemployment, includes also the great numbers of self-employed and those employed in service occupations with very low productivity and very high instability and for which no qualification is needed.

As we have seen throughout the analysis, the process of marginalization of large sections of the population is not an occasional but an enduring one. We can certainly say that it is a stable and chronic process and certainly increasing in intensity. We believe that the problems of unemployment and migration we are studying, are, in spite of their magnitude, up to a certain point "minor problems", which constitute only part of a number of subsets which are totally contained in the intersections of the three large sets we have studied before.

3.5 Series of Subsets Directly Related to Our Study

The intersection of the three main sets contains a large series of subsets or problem areas among which are found the three subsets more related to our study:

1. The urban unemployment subset.
2. The land ownership concentration subset.
3. The rural unemployment subset.

1) Marx, Karl, 1968 ed. Vol II, pp. 316, 410, 501.

2) Quijano, Aníbal, 1970, p. 2.

The intersection of this series of three subsets produces the rural to urban migration. We are going to see in detail these subsets throughout this study.

After having shown the model, it becomes easier for us to understand the major causes around subset problems like the rural and urban unemployment and the land ownership concentration subsets.

They are but localized effects of the interrelation of the larger sets of structures upon the Colombian society.

Rural to urban migration, which is the central theme of this study, is no more than the dynamic reallocation in space of large numbers of people who do not have any other alternatives but to move to the cities due to the pressing effects of the situation in the countryside.

Furthermore, we must not forget that the cities in countries like Colombia represent all that which is "development" and "modern", and the countryside represents all that which is "backwardness" so there are more than enough reasons for the peasants to migrate.

3.5.1 The Rural to Urban Drift of the Unemployed

We have pointed out that the intersection of the rural and urban unemployment subsets and of the rural land ownership concentration subset produces what is called the rural to urban unemployment drift and this drift is the very central point in our study.

It has been mentioned that these subsets are contained in the intersection of three larger sets: the dependence set, the social, political and economic internal structure set and the demographic growth set. However, the influence of the sets upon each one of the subsets varies in intensity.

1. The urban unemployment subset concerns the incapacity of the urban areas to absorb the urban inhabitants into urban type jobs. This subset is influenced to a very high degree by the dependence set. The character of dependent subdevelopment of the industrial sectors of the country that we have seen before entrails, a kind of industrial development which is fragmentary, disconnected, without forward or backward linkages to the rest of the economy, and highly capital intensive and labour saving.

2. The demographic growth set has very wide effects both on the rural and on the urban unemployment subsets.

The very fast increase in population in the whole country must be considered the cause of many of the growing problems of the country. Very great

resistance from the official church of the country, the Catholic Church, against all kinds of population control measures must be overcome if the country is to make progress in any of the other fields we are studying.

3. The social, political and economic structure set of the country has very wide effects upon every one of the subsets we are studying. The traditional wide differences between the social classes of the country permit the existence of very anachronistic structures, like the land ownership concentration subset, and the indifference to employment creation policies both in the countryside and in the cities.

Rural to urban drift of the unemployed should not be seen as the spatial conventional stabilization between employment offer in the urban areas and the employment demand existing in the countryside.

Migrants from the countryside are not in a position to build a relevant system of contacts when they arrive in the urban areas. There are quite a number of very serious barriers that make it impossible for them to resettle in a secure way. These barriers are represented by the economic and social institutions of the urban areas, including the legal institutions. At the same time there is need of new political institutions that take the migrants part.¹⁾

Secondly, with the lack of school education the migrants have, it is impossible for them to compete for the few jobs available. The illiteracy of the migrants makes it very difficult for them to orientate themselves in the city, where one has to read the name of the streets, the numbers and names on the buses, the name of work places, the newspapers, to do arithmetic calculations, etc. As one can understand, this is not merely a psychologic problem for the migrants, but a real handicap. However, the merely ability to read does not guarantee any jobs in Colombia, where unemployment is so widespread.

Lack of income pushes the migrants to invade urban land in order to build their shacks. The illegality of this situation makes them outlaws in the middle of an environment of which they are not at all lords. For people who have lived before in the deep isolation of the countryside, the sudden change to illegality in the urban areas makes the lives of the migrants very hard.

Very high crime rates in the urban areas, the large number of beggars and the enlarging pattern of ghetto-like slums are the more visible signs of the large number of unemployed migrants. The ubiquitous location of the slum areas will be shown in a model later on in this chapter.

1) For analyses of the migrants as resource see, Royal Ministry for Foreign Affairs, Stockholm 1974.
Also ILO, 1972 (1).

4. Is the Urbanization Movement in Colombia Part of a Worldwide Problem?

We must certainly agree with those who in the urbanization movement are seeing the characteristics of a worldwide problem. There are differences, however, in the qualitative aspects of rural to urban migration in the backward countries, from migration movements in the industrialized countries. The characteristics of the rural to urban drift in Colombia have much in common with the same problems in the rest of the countries in Latin America and with other backward countries. This originates from the character of dependence, from the demographic growth speed, and from the social, political and economic structures that with rather small variations, constitute a common denominator for the backward countries.

Migration in the industrial countries, on the other hand, is connected with the "Packing"¹⁾ of activities in space. In the backward countries it means the packing of inactive people in space.

In the industrial countries, notes Hägerstrand: "Urbaniseringen är ytterst en sida av teknikens specialisering och den därmed nödvändiga horisontella länkning mellan aktiviteter. Specialister kan åstadkomma färdiga helheter bara genom samverkan. Hopklumpningen av företag och folk har med tiden framkommit som en åtminstone ur produktionens synpunkt fördelaktig organisationsram för detta nödvändiga lagarbete. Urbaniseringen har nått sin fulla suveränitet nu när länkarna mellan dem som samverkar blivit så många och komplicerade, att systemet måste kunna fungera genom en självreglering av relationerna mellan aktörer, vilka i stor utsträckning är anonyma för varandra."²⁾ Industrialismen sammanfogade flera olika nyheter till en kombination. En av nyheterna var naturligtvis maskinen. En annan inte mindre fundamental var fabriken - platsen där många människor fördes ihop till ordnat samarbete under ett tak. Eftersom folk måste ännu vandra till sitt arbete, medförde en stor fabrik med nödvändighet också en stor klunga bostäder nära omkring.³⁾ Sedan dess har arbetets specialisering, transportmedlens allt större oberoende av avstånd och tid jämte vår skicklighet att konsumera, knutit in oss i ett allt vidlyftigare nätverk av horisontella länkar.³⁾ Här hos oss går (urbaniseringen) hand i hand med höjningen av den materiella standarden. I fattigländerna flyttar den undersysselsatta eller arbetslösa befolkningen över från en till trängsel fylld landsbygd till nästan samma undersysselsättning eller arbetslöshet i en till ännu större trängsel fylld storstad. Den ekonomiskt aktiva befolkningen går på sina håll inte upp till hälften av de arbetsföra."

In backward countries like Colombia migration to the cities does not fulfil the same functional and dynamic role it has had in the industria-

1) Hägerstrand, Torsten, 1970, p. 20.

2) Ibid., p. 21.

3) Ibid., p. 21.

lised countries. It obeys rather to very high pressures in the countryside and it has increased the problems of unemployment in the cities. The prospects for the future are not much better than those the cities can now offer. Jobs must be found in other places than the urban areas. That is the reason we look to the countryside for the creation of jobs in the future.

5. A Spatial Model of Migration Patterns in Colombia

The following chapters will be devoted to the testing of a spatial model of migration flows that we are going to propose here to explain the case of Colombia. See Fig. 2.

The model is intended to show all the known patterns of migration to be examined and tested to find out the most significant migration stream patterns.

There are two very important characteristics of the model that we will explain here:

1. Very high growth rates at all the levels of urban areas without exception. Moreover, the highest growth rates, and the largest concentrations of the population are to be found at the regional centers level, that attract both rural and urban migrants.

2. Strong loss of the rural population to the urban areas, especially the population living spread in the open countryside. The small rural towns also lose their population. Important exception seems to be the large rural towns, 10 to 30,000 inhabitants, which grow at impressive high rates. See Table 1. Depopulation of the rural areas is the main cause of the very high growth rates in the cities.

There is a third very important characteristic, to be examined later on, the continuous state of unemployment in rural and urban areas. People migrating to the urban areas being unemployed, and after arriving finding out that unemployment is widespread also in those areas.

5.1 Explanation of the Model

There are very different forms under which migration takes place in Colombia. Migration flows are found at different levels of rural and urban areas. The model figure that shows the main flows, is complemented by Fig. 1 that summarize the most important population changes for the period 1951-1964. In

this way the most important propositions of the model can be directly compared. The most important flows are to be analyzed throughout the study.

Space in the model has been treated as a series of hierarchically related sets, which do not intersect each other, in a static fashion. Yet these sets have a series of dynamic connections, or flows represented by arrows of migration.

Hierarchy is brought to the model through empirical observation of the different kinds of human agglomerations in Colombia, having its highest values for centers of regional importance and descending in the scale through the different typologies of urban areas; then the rural towns and down to the last categories of open spaces in the countryside with scattered settlements, where there are not even small service centers that look like the beginning of urban agglomerations.

The numbers of description of the model below are the same numbers that appear in the model figure to denote the different drawings. We will start by describing the most important urban areas - the destination places for the migrants - and then descend in the scale of importance of the inhabited places:

1. Regional Urban Centers.

These are the fastest growing Colombian urban areas. All four of them are larger than 500,000 inhabitants. There has been a very rapid migration from the rural hinterland of these centers towards the core of the cities. Additionally, these centers receive migrants in large numbers from most of the less developed urban and rural regions.

The four existing regional urban centers have a complete monopoly of the few jobs of industrial type in the country and hence exert large attraction upon migrants who may seek those jobs. 80 per cent of the industrial jobs are concentrated in the four cities. See Chapter three.

2. Subregional Urban Centers.

These are eight sizable urban areas, up to 250,000 inhabitants, and also growing very fast. They may contribute with migration flows to the larger regional centers but of no larger proportions, as it is indicated by their own high growth rates. Almost all of them are administrative capitals of the departamentos where they are located.

These cities have also received large migration flows from the rural towns and the open countryside under their influence.

Figure 2.

Spatial Model of Migration Patterns in Colombia.

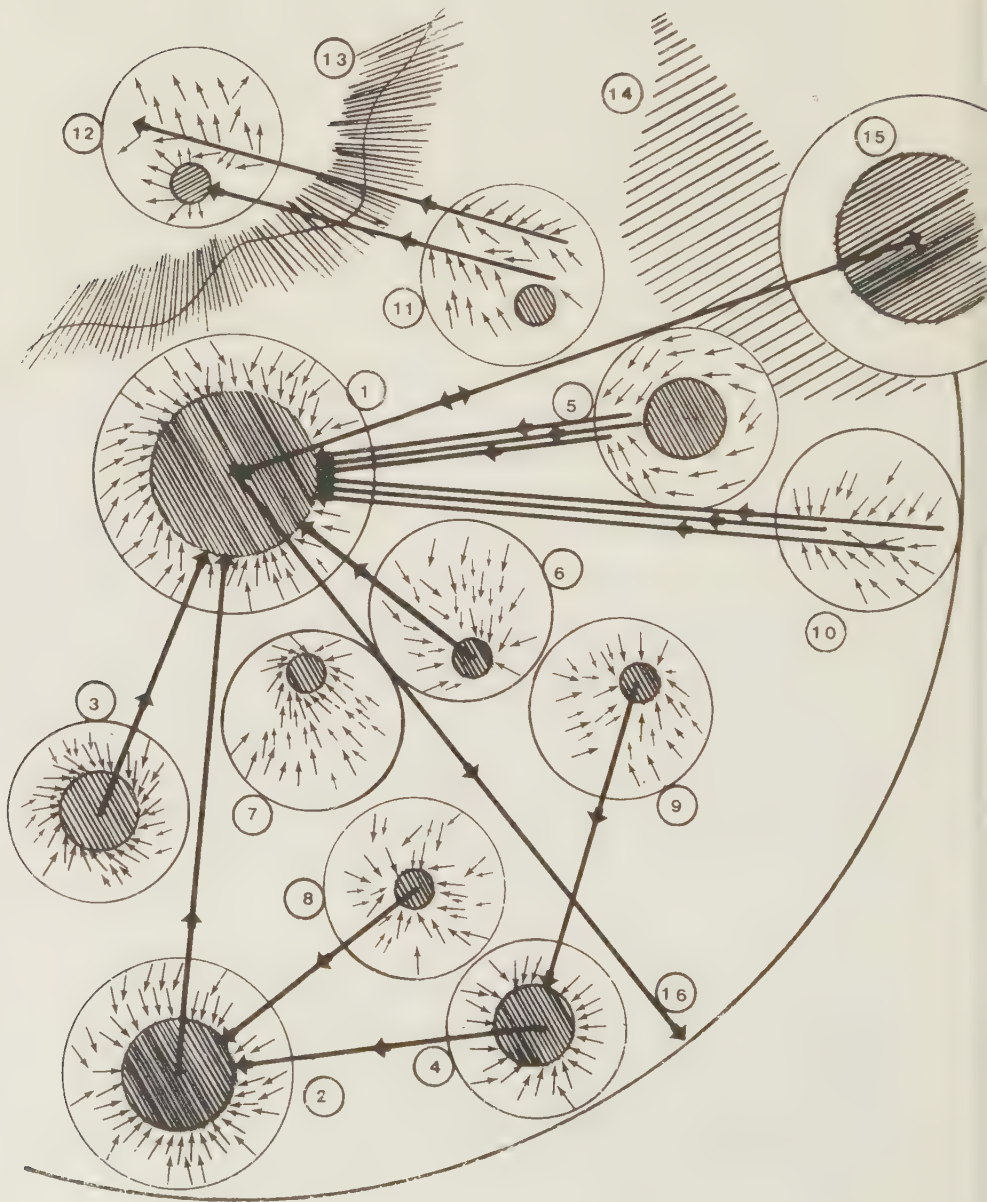


Table 1

Differential Concentration of the Population in Rural and Urban Regions in the Period 1951 - 1964.

<u>Systematic Areas</u>	<u>Number</u>	<u>Pop Ranges</u>	<u>Growth Rates</u>	<u>1951 Pop</u>	<u>1964 Pop</u>
Regional Urban Centers	4	Over 500,000	6.8	1,604,169	3,785,531
Subreg Urban Centers	8	100- 250,000	5.7	652,333	1,351,736
Local Urban Centers	18	30- 90,000	6.1	478,999	1,038,494
Large Rural Towns	66	10- 30,000	12.0	224,736	980,333
Medium Rural Towns	334	2- 10,000	2.6	1,090,200	1,522,000
Small Rural Towns	418	Less 2,000	- 0.4	418,000	415,000
Open Rural Areas			1.35	7,079,735	8,391,414
Total Pop Urban Areas			6.5	2,735,501	6,175,761
Total Pop Rural Towns			4.1	1,732,936	2,917,333
Total Rural Population (including rural towns)			1.9	8,812,671	11,308,747
Total Country			3.2	11,548,172	17,484,508

Main Data Sources: Departamento Nacional De Planeación. Bogotá, 1969 (2), and author's estimates.

3, 4, 5. Local Urban Centers.

These cities constitute the lowest class among the existing urban areas, with population ranges between 30 and 100,000.

Very few of them, 5 out of 18, were administrative capitals of their departamentos. They have grown at the very fast rates of 6 percent per year. However, we must differentiate between 6 per cent growth rates in the case of a city of 60,000 and in the case of a city of 1,000,000. At the end of the first year, the first city will have increased by 3,600, while the second will have increased by 60,000. This is the main growth difference that exists between the local urban areas, and the regional urban centers.

Many of the local urban centers are located in peripheral regions with respect to the rapid economic growth that takes place in the regional urban areas. Although these local centers grow very fast due to immigration from their hinterland, they are quite isolated from the large urban areas. And their neighbouring areas, minor towns and open rural areas are, with a few exceptions, sending large numbers of their inhabitants to the slums of the regional urban areas. This is the case described in the graph in number five.

Some of the migrants to the subregional and regional urban areas may come from the local centers, although most of them may be rural migrants, described in numbers three and four, changing residential places in a stepwise fashion.

6, 7, 8, 9, 10. Rural Areas.

Rural areas include all the regions where small villages and towns up to 30,000 are located and their hinterlands, added to those regions where not even villages appear but where the peasants are spread on farms.

Rural areas have contributed the most to the concentration of the population to the large urban centers through large migration flows. Rural to urban migration can be direct or stepwise. Direct as in case six. Stepwise as in 8 and 9, through local and subregional urban areas.

A very interesting case is number seven, which shows intra-rural migration that has as destination points the largest rural towns. This type of migration may reflect some tendencies of the population which make sense, namely resettling in centers where they can obtain a minimum of urban type services, while preserving agricultural type jobs, probably of subsistence type.

The official statistics do not show how fast the largest rural towns - 10-30,000 - are growing. We have made some extrapolations that - if they prove to be right - would reveal that these towns - 66 in number - are growing at the fastest growth rates among the populated areas of the country, an almost incredible 12 per cent per year, even much faster than the growth of the regional urban areas. See Table 1.

It is necessary to make further comprobations with the statistical sources of the country before this finding - a very interesting one - should be accepted.

11, 12, 13. Rural Migration to Resource Frontier Regions.

A new migration pattern seems also to emerge, of exact opposite directions to the patterns already revised. In this case it has to do mostly with migrants from the rural areas resettling in regions that have not been settled before. These regions have especially difficult conditions for communicating with the rest of the country.

In many cases these "frontier regions", are located almost on the outskirts of the large regional urban centers, but have remained unsettled until now. These new regions can be transformed into real assets for the country in the future, if planned development programmes take over and can help the settlers to integrate the region with the rest of the country.

Migration to these areas is not very large in size, but on the other hand it is increasing very fast.

Migration from a rural area towards the open countryside and towards the villages in a developing agricultural area within a frontier region, can be seen in numbers 11, 12 and 13.

14. Unsettled Regions.

Very large stretches of land in the country remain totally unsettled. They are about 85 million hectares out of the 113 million that the country holds. A large part of this land is not suitable for agriculture, large part of it being covered by jungle. But certainly also a large part constitutes a reserve for the future.

15. Migration Between Regional Centers.

There are not any statistics available about migration between the regional centers. But it is expected that the specialization of these centers will increase their interdependence in such a way that selective migration flows will become the rule among these centers.

16. Regional Center's Attraction Field.

Attraction field of a regional center has been indicated, to show the fact that every regional center exerts very strong attraction in a field that includes subregional and local areas and, of course, their rural hinterlands.

5.2 A Model of Rural-Urban Spatial Location of the Migrants

In order to complete the rural to urban migration model, it is presented here an explanatory model of the rural-urban location in space of the migrants, the purpose of which is to clarify the static moments of the migration process in concrete spatial situations. See Fig. 3.

A very important characteristic of those who are migrants in the urban areas, and of the would-be migrants in the countryside is their non-dominating location in space. This characteristic does not concern the ubiquity with which they appear in space in the slum areas, and in the countryside.

The would-be migrants in the countryside are sometimes found in small towns. But generally, they do not own the hinterland around the towns, as it is shown in the model. The hinterland is composed of uncultivated land, the latifundia centers. It would be more appropriate to say that the rural towns are the hinterland of the large latifundia. Occasionally it would be possible to find jobs in the latifundia.

Small minifundia farms are found along the roads, between the interstices of the latifundia, isolated or in groups forming one-street small villages.

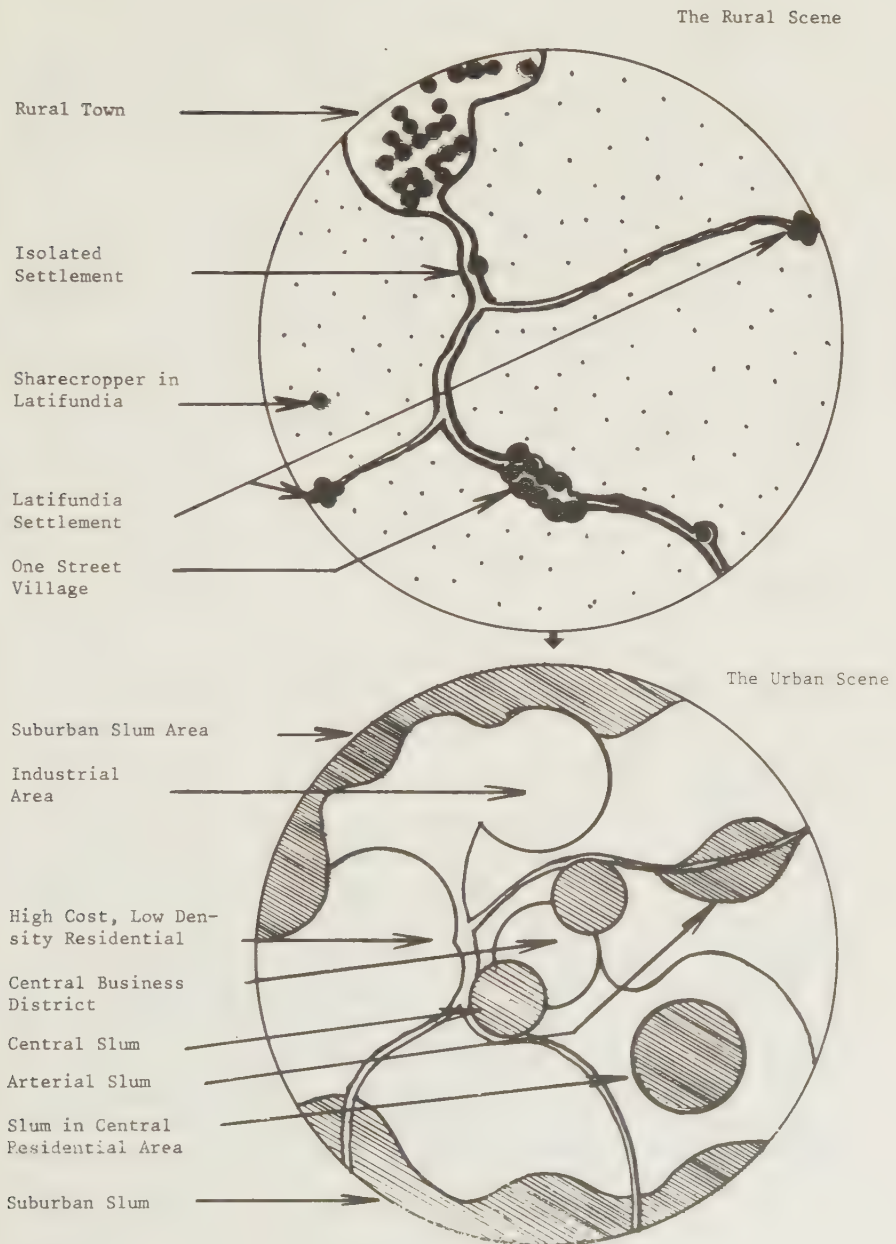
Sometimes it is possible to find in the latifundia, small minifundia farms. Their occupants are often sharecroppers, they can till a piece of land and share the products with the landowner. They can also work in the landowner's service and get a bit of land to cultivate in payment. They can not cultivate crops as coffee or bananas, otherwise it would be difficult for the landlord to have them move, as there are laws that protect those who have perennial crops. They could also improve their houses and in this way make it difficult for the landlord to expel them. On the other hand, it is not very often they have economic means to improve their housing.

Housing stock in the countryside is as a rule, of very low quality, with the exception of the landlord's manor houses. Small one-room schools where only a few of the children attend the lessons, are probably the only signs of improvements seen.

The migrants in the urban areas are more concentrated in common places than the would-be migrants in the countryside. Things such as water, sewage, lack of privacy, that did not present themselves as a problem in the countryside, appear now in the cities as some of the largest nuisances for the migrants. Not however in the first place, as the largest nuisances are perhaps the lack of jobs and the insecurity of tenancy as the lands where they live are invaded ones.

Figure 3.

A Model of Rural-Urban Spatial Location of the Migrants.



Migrant's slums appear on the outskirts of the cities, in hilly lands of difficult access, near the industrial areas, but sometimes on the very expensive land where low density housing has been built.¹⁾ The slum areas appear in the core of the cities, near the central business districts, in the form of old, out of function housing stock, subdivided to hire per room.

Slum areas can also appear downtown in the middle of residential areas, in land that has not been developed and suddenly becomes invaded. Slums also appear very often along the ways that come from the rural areas, on the outskirts of the cities.

Slum areas are not the dominating centres in the cities, but because of their sheer number and because of the slum dweller's lack of respect for the existing laws on how land is used in the urban areas, they are progressively becoming the main areas of the urban places. It is very interesting in this relation, the form of reaction of the authorities in the urban areas, not allowing the slum areas to be recognized as part of the cities, not even permitting these areas to receive services from the city as trash collection, water or electricity, and not allowing the slum areas to be drawn on the maps of the cities. Thus, the process of expansion of the slum areas becomes rapidly accelerated.

6. Summary

The first Chapter has been devoted to the location of the migration of the unemployed peasants in Colombia with relation to the rest of important problems the country has. Some of the best known studies on migration done in the industrialized countries have also been revised, as regards Colombian conditions.

1. With respect to the last point we have mentioned, it is evident that migration in the industrialized countries has been governed by the functional packing of activities in space. And that migration movements can be seen as a step for the further rationalization of the existing social and economic activities in the industrialized countries.

Emigration of the population from unemployment and underemployment areas in the countryside, to open unemployment in the urban areas - the type of migration in the backward countries - has no counterpart among the migration movements studied in the industrialized countries. That is why the measure-

1) Abrams, Charles. 1964. Chapters 1, 2, 3.
Also Herrick, Bruce. 1965.

ment of migration fields, which has been done in the last countries, in spite of its importance, has no more than a secondary and marginal degree of significance in our case.

2. A model for explaining the rural migration to unemployment urban areas within the frame of underdevelopment in Colombia, has been presented in this chapter. The model, looking for an alternative basis in the case of migration in the backward countries, permits us:

2.1 To localize the migration of the unemployed among the host of existing problems in the backward countries. And to find out the hierarchy of the problem with respect to the others.

2.2 To find out which variables have a more immediate effect upon the migration of the unemployed in the backward countries, and which should be given more importance in the case of our study.

Three variables were found with respect to the location in space of employment possibilities and with very near relation to our migration study:

2.2.1 The problems related to unemployment in the different urban areas, especially the concentration of most of the industrial production and most of the few new job openings in the largest cities, with the resulting lack of productive jobs in other areas.

Of importance was also the large number of job seekers with respect to the possibilities existent in the different cities.

2.2.2 The problems related to unemployment in the different rural areas, and in this connection it was found very important.

2.2.3 The land ownership concentration structure as having a very high correlation to unemployment in the rural areas, and being one of the most important factors behind migration.

3. We have also studied the problem of rural to urban migration in a world perspective and noticed that although the process of urbanization is a worldwide process, there are very great differences between backward and industrialized countries with respect to the motivations behind the migration movements to the urban areas.

Additionally, differences were found with respect to the matching of migration movements with economic and social activities in the two sorts of countries. And with respect to the effects that the migration movements have for the spatial structures of both rural and urban areas.

4. Finally, two mutually complementary models have been proposed to show the most important spatial patterns of migration and of settlement of the migrants in the urban areas. The models have been built by analyzing the different types of rural and urban units existing in the country. And they

show the dynamic flows of people between the different human agglomeration unit types. A comprehensive summary of the main changes in the location of the Colombian population was added to the models to make first instance checks.

PART TWO: MEASURING THE MIGRATION OF THE UNEMPLOYED

CHAPTER TWO: DEMOGRAPHICAL CHANGES IN COLOMBIA

1. Physico-geographical characteristics

Colombia is located at the north-west corner of South America. The Equator line goes over the southern part of the country, and the 12th parallel over the northern side. The east and west sides are limited by the 67th and 79th degrees west of Greenwich.

With its area of 1,136,000 km² is Colombia nearly three times the size of Sweden and with a population of 21,000,000 at present, in a few years the population will also be three times that of Sweden. See map 1.

Colombia has at the north a 1,600 km long coast on the Caribbean Ocean, and at the west a 1,300 km long coast on the Pacific Ocean.

The country has several very large rivers, the largest ones in the inhabited parts of the country being the Cauca and Magdalena rivers that cross the country in south-north direction and go to the Caribbean Ocean.

Other large rivers are the Atrato which also goes to the Caribbean, the San Juan which goes to the Pacific, and the Amazonas, Vaupes, Caquetá and Putumayo at the south of the country. These last rivers join the Amazonas, follow their course through Brasil and end at the Atlantic Ocean.

The Arauca and Meta rivers join the Orinoco at the east of the country, and through Venezuela go to the Caribbean.

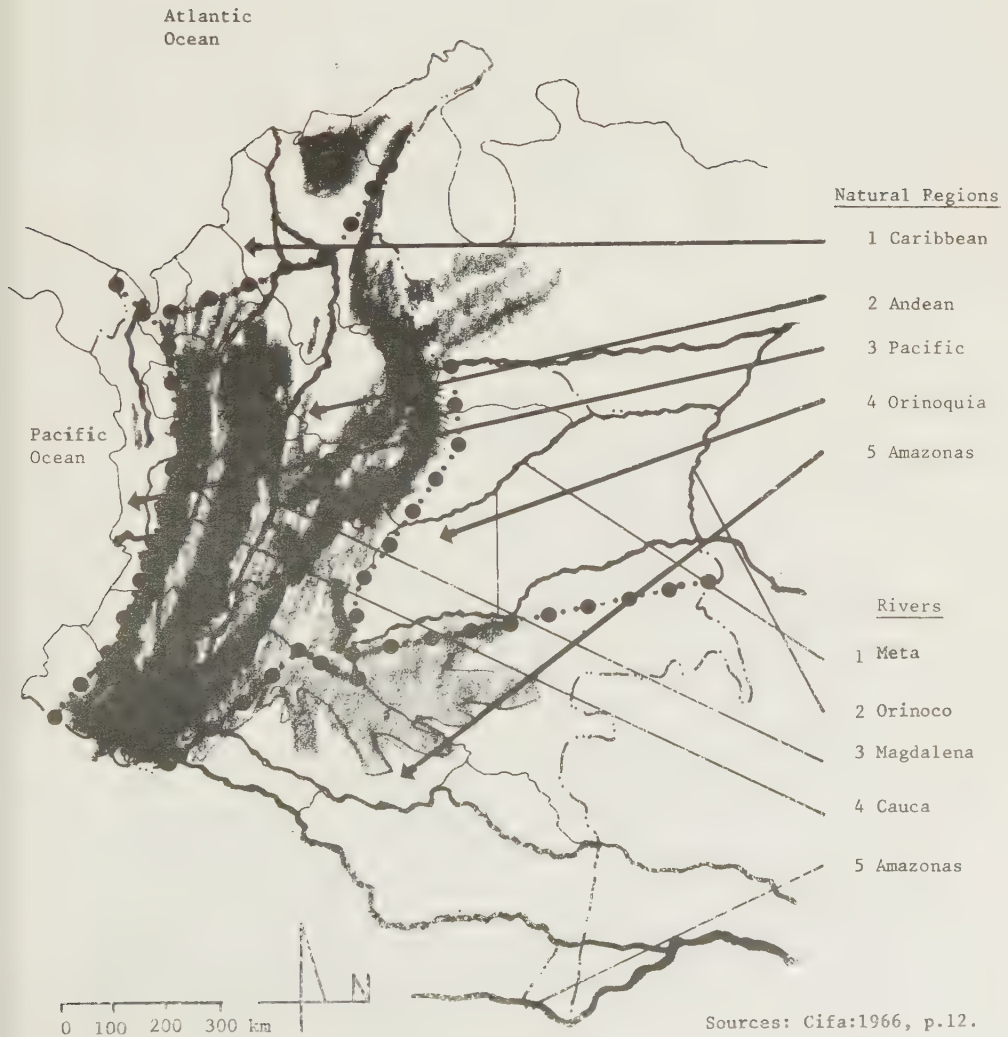
The Andes Cordillera crosses the country in south-north direction. It is divided in three branches inside the country - East, Center, and West Cordilleras. These cordilleras divide the country in many very different regions. The highest point of the cordilleras is 5,875 meters above the sea level. They constitute a serious barrier for communication between the different regions of the country. Being the country located on the Equator, it is the height above the sea level that decides the climate in the different regions, and the types of products to cultivate. In this way the importance of the cordilleras for the country is tremendously large.

There are four different climatic zones in the country: warm, temperate, cold and very cold zones.¹⁾

1. Warm climatic zone. This includes all areas with heights up to 1,000 meters above the sea level. It has a temperature of 24°C on an average. It covers the river valleys in the Andes, the flat areas of the Caribbean and the Pacific regions and also the Orinoquia and Amazonia regions. It covers

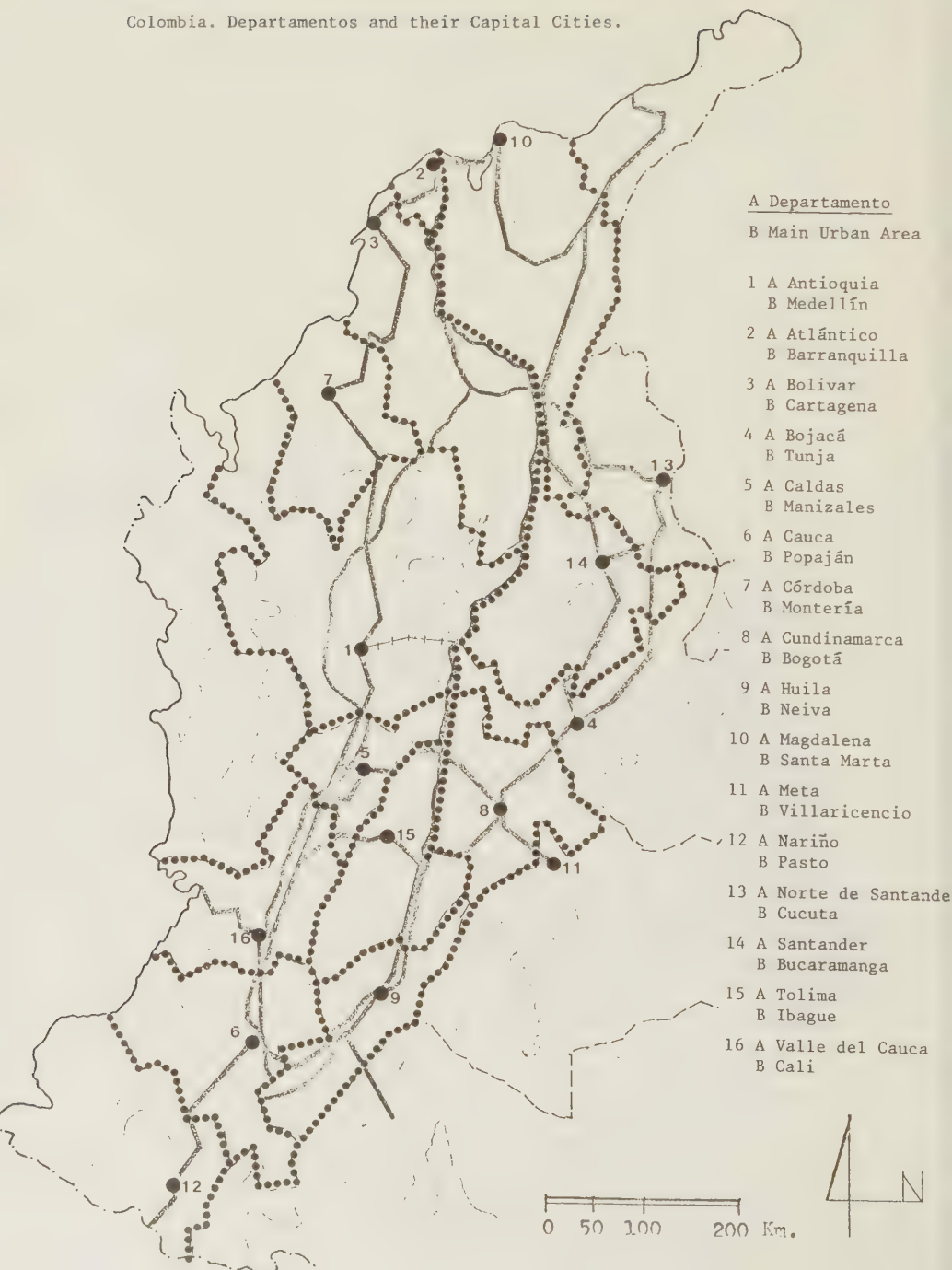
1) CIDA. Comité Interamericano de Desarrollo Agrícola, 1966, p. 10.

Map 1. COLOMBIA. Physico-Geographical Characteristics.



Map 2.

Colombia. Departamentos and their Capital Cities.



an area of 83 per cent of the country and in this climatic zone 40 per cent of the population live.

2. Temperate climatic zone. This covers those areas between 1,000-2,000 meters above the sea level on the Andes Cordilleras.

It has a temperature above 17°C . on an average. It is a very important zone for the economy of the country, as coffee which is the first export product, is produced in this zone. It covers an area of 9 per cent of the country and there 37 per cent of the population live.

3. Cold climatic zone. This covers those areas on the Andes Cordilleras between 2,000-3,000 above the sea level. It has temperatures above 12°C on an average. It covers an area of 6 per cent of the country and in this zone 22.5 per cent of the population live.

4. Very cold climatic zones. This covers those areas on the Andes Cordilleras above 3,000 meters. It has temperatures below 12°C on an average. It covers an area of 2 per cent of the country with 0.5 per cent of the population of the country. The highest parts of this zone are covered with snow all year around.

The combination of the climatic zones and the direction taken by the large rivers and the mountain chains, have divided the country in five regions, which have had a decisive influence on the patterns of settlement in the country. And which even today are very important determinants of the major movements of the population, and also of goods. In fact the natural regions have presented throughout the times, both propitious zones for the human settlement and very strong barriers hindering the development of others.

Settled regions have traditionally been those near the Atlantic coast and also the Andean mountain chains. The first ones, at the north of the country, were the arrival points for the conquerors from Europe. And due to the south-north direction of the rivers and mountains, they were the most suited places for the penetration of the newly discovered lands. The Andes on the other hand, had cooler climates than the low lands of the coast and were propitious for the type of Mediterranean agriculture the Spaniards were used to.

The large unsettled regions at the east of the Andes, the low lands of the Pacific coast and the lands of the Amazonas were either swampy or covered with thick jungle, and the lands not as good for agriculture as those in the Andes. Large areas of these regions were also seasonally flooded by the great rivers. These features also caused tropical diseases like malaria, that was incurable at this time.

Another very important factor for the early location of the Spaniards in Colombia, was the location of the gold, platinum, silver and emerald mines.

Most of these mines were in the Andes. And it is well known that precious minerals was the main interest of the Spaniards when they arrived to America.¹⁾

The country can be divided in five regions that correspond nearly to the physical characteristics and to the patterns of settlement. The first two regions - the Andean and Caribbean - are the inhabited ones, and most of the migration flows under revision in this study, take place here:

1. Andean Region. It is the area of the mountains and valleys of these mountain chains. This is the most densely populated region of the country. 80 per cent of the total population reside in this area.²⁾

Three of the four largest cities of the country are located in this region: Bogotá, Medellín and Cali.

Different agricultural products come from this area, according to the climate; the most important products, coffee, comes from the temperate zones of the region.

The Andean region covers about 23 per cent of the area of the country.

2. Caribbean Region. This region covers the flat, low lands of the Caribbean coast. 17 per cent of the population live in this region. The fourth and fifth largest cities of the country - Barranquilla and Cartagena - are located here. These two cities, together with Santa Marta, are the three largest harbours of the Caribbean coast. The region covers 10 per cent of the area of the country, and most of the land is used for extensive cattle raising.

The Andean and Caribbean regions together cover an area of one third that of the country, and ninety seven per cent of the total population. See map 1.

3. Pacific Region. This region is located between the West Cordillera and the Pacific Ocean. It is a region of jungle, very high rainfall and very isolated from the rest of the country.

Most of the people live from fishing or forestry on a very small scale. The region covers an area of 5 per cent of the country and 1.5 of the total population.

4. Orinoquia Region. This is a region of flat, low lands of warm climate at the East of the Andes. The large rivers of this region go to the Orinoco river, that continues through Venezuela.

Large parts of the lands are flooded every year, and they are also used

1) Griffin, Keith, 1969 p. 36.

2) The following is the distribution of the Andes' population by climate: 0.5 per cent in the very cold region, 29 per cent in the cold region, 48 per cent in the temperate region and 22 per cent in the warm region.

for extensive cattle raising in large latifundia farms.

The region covers 22 per cent of the area of the country and 1.5 per cent of the total population.

5. Amazonas Region. This extensive jungle region at the south of the country covers about 43 per cent of the country and 0.3 per cent of the total population.

Oil has been recently discovered in the region, but communications with the rest of the country are not good.

No soil studies of the three last regions are available in Colombia. However, everybody agrees that the costs of settling these regions are tremendously high. The two largest jobs to be done are perhaps the very extensive works necessary to regulate the rivers, and the establishing of a communications net.

1.1 Administrative Divisions of Colombia

Colombia is for administrative purposes divided into three different types of regions: Departamentos, Intendencias and Comisarias.

Departamentos are large, populated regions, which can be compared to the Swedish Län. Intendencias and Comisarias are almost unsettled regions which are of no importance at all for administrative purposes.

The basic administrative local units in the populated regions are called Municipios, which correspond to the towns larger than 1,500 inhabitants added to the population in their hinterlands.

There were 895 such units in 1964, with an average of 19,335 inhabitants per Municipio.¹⁾

For this study we are going to use the populated regions of the country, the Departamentos, and in other cases their subdivisions into Municipios. Clearly, the use of administrative regions for a study of migration, is of very relative value,²⁾ as a division of the territory in this way, does not take account of spatial processes of interurban and of urban-rural type that may take place across the borders of the departamentos, and which should obviously be considered as part of a same set of happenings.²⁾

There is also the converse danger of gathering together population structures which are unrelated, just because they happen to occur within a common

1) Shultz, T. Paul, 1969, p. 85.

2) Jakobsson, Arne, 1969, Chapter 3.

border. There is in this case no better alternative than making use of the existing data, although with reservations as to the validity of the results.

The two great regions that contain the departamentos are the Andean and Caribbean regions, with 97 per cent of the population of the country. We are going to use data on departamentos that existed in 1964 and to overlook the fact that new departamentos have emerged through the subdivision of the existing ones since that year, as the most recent data on population still uses the old divisions. The intendencias and comisarías do not need to be considered for most parts of this study.

1.2 Inhabited Regions in 1964

Map 3 shows the Colombian areas where 96 per cent of the population resided in 1964. Data has been given in absolute and per cent values. The departamentos have been divided into three groups accordingly to the percentage of the population residing in each of them: up to 5, up to 10, and more than 10 per cent of the population of the country. The three departamentos with highest proportions of the population-Cundinamarca, Antioquia, Valle are in the Andean region. It is not a coincidence that the three largest cities of the country-Bogotá, Medellín, Cali- are the administrative capitals of these departamentos. The lowest percentages of the population are found in departamentos at the south of the Andean region, and also on the low lands of the Caribbean coast.

2. Demographic Characteristics of the Rural and Urban Population

The estimated Colombian population for the year 1975 will be about 25.5 million.¹⁾ The population figure for Colombia is a very fast growing one.

"There were 4.4 million people in the country in 1905. In 1938, 33 years later, this number had been duplicated and became 8.7 million people. In 1964, 26 years later, the phenomenon repeated itself, and the population increased to 17.5 million; the next time the population duplicates may occur in about 20 years (1980-1985).

This rhythm is in contrast with the time it takes the population to become duplicated in other countries, for example Italy, 117 years; Portugal, 100 years; Spain, 88 years; USA, 63 years; Uruguay, 58 years; Argentina, 47 years; Chile, 32 years."²⁾

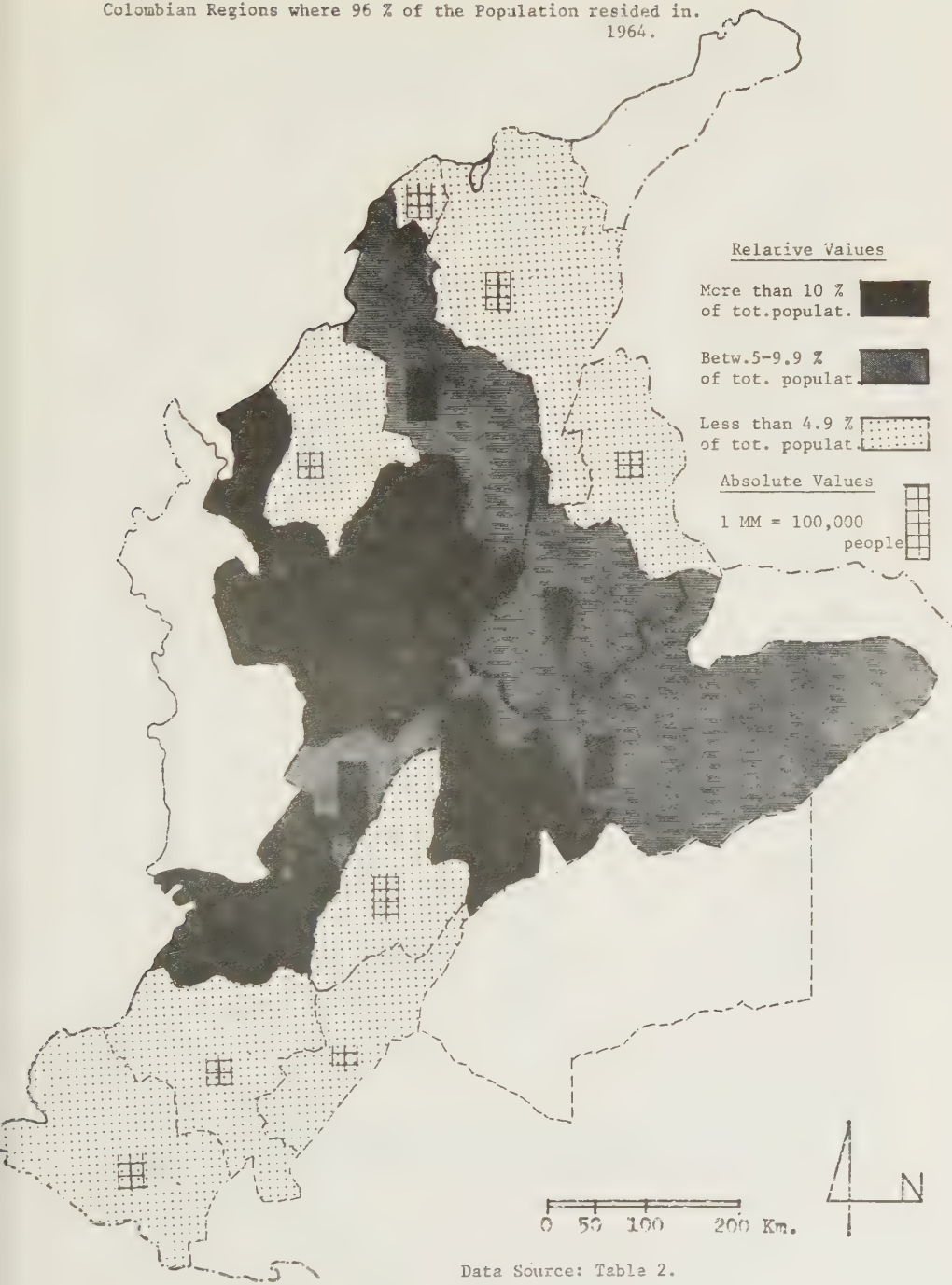
(See Diagram 1, which shows the development of the Colombian population rural and urban, since 1938.)

1) International Labour Office, 1971 (3) p. 80.

2) Departamento Nacional de Planeación, Bogotá, 1969, (2) p. 2.

Map 3.

Colombian Regions where 96 % of the Population resided in.
1964.



Data Source: Table 2.

Table 1

Colombian Urban and Rural Population. 1938-1951-1964.

(Population figures are given in thousands)

<u>Departamentos</u>	Year	<u>1964</u>	<u>1951</u>	<u>1938</u>	
Antioquia		911	398	140	
Atlántico		531	296	140	
Bolívar		262	136	85	
Boyaca		107	45	30	
Caldas		530	255	150	
Cauca		59	32	20	
Cordoba		71	24	13	
Cundinamarca		1,740	701	330	
Huila		76	33	20	
Magdalena		180	70	40	Urban
Meta		45	17	10	Population
Nariño		83	49	30	
Norte Santander		147	70	45	
Santander		285	133	61	
Tolima		125	54	30	
Valle		988	427	165	
Total		6,176	2,736	1,309	
Antioquia		1,566	1,173	1,049	
Atlántico		187	132	128	
Bolívar		744	529	431	
Boyaca		951	757	707	
Caldas		926	814	620	
Cauca		549	412	336	
Cordoba		515	303	237	
Cundinamarca		1,080	923	844	
Huila		340	261	197	Rural
Magdalena		609	337	262	Population
Meta		120	50	42	
Nariño		623	498	436	
Norte Santander		387	317	301	
Santander		717	615	555	
Tolima		716	658	518	
Valle		745	680	448	
Total		11,309	8,813	7,393	

Data Source: Census 1964.

Note: Thresholds for urban population are those areas which had in 1964 more than 30,000 inhabitants.

The Colombian population growth rate is a very fast one, 3.2 per cent per year, indeed one of the fastest in the world. In comparison with other countries of Latin America, Colombia is growing at a faster rate than the average. Latin America has grown also at the fastest rate among all the continents, with a 2.9 per cent per year growth rate, between 1950 and 1970.¹⁾

Table 1 shows the most recent developments of the population variable in Latin America. The countries have been arranged according to their ranking with respect to the population growth rate variable, those countries which have the highest rates being placed at the top. This variable is shown in column (3), Table 2.

An earlier attempt was made to classify the countries according to their degree of urbanization, shown in column 10. It was soon found that the concept urbanization is but homogenous with respect to Latin America. While Argentina, for example, classifies as urban those centers larger than 25,000 inhabitants, in Colombia the official concept contains as urban all towns larger than 1,500 inhabitants, and in so different ways do the rest of the countries.²⁾

With respect to the population growth rate in column 3, Colombia occupies the 8th place among the 22 countries on the list. Six of the seven countries which have higher population growth rates than Colombia, belong to the Central American and Caribbean area. Lowest on the list are those countries which have had a higher economic and social development in the continent, like Uruguay, Argentina and Chile, and some small countries in the Caribbean as Barbados and Jamaica. All these countries are characterized by low population growth rates, also low birth rates as shown in column 4, and their death rates as shown in column 5, do not differentiate from the average for all the countries, which is about 9-10 per thousand.

Among the countries with the lowest population growth rates in Latin America are also found some of the most backward ones as Haiti, Bolivia, Guatemala and Paraguay. In the case of Guatemala it has to do with very high birth rates, but is at the same time compensated by very high death rates, inclusive infant death rates. In the cases of Bolivia and Paraguay, which register rather low birth rates, it is our opinion that they could be explained by shortcomings in the collection of statistical data, rather than

1) Bairoch Paul, 1973.

2) We have used throughout this study a classification of urban areas with a minimum threshold of 30,000 for the Colombian case. In a later section on the development of the urban areas, the basis for this classification will be explained.

See, America en Cifras, 1972.

Table 2

Demographical Development in Latin America.

Columns: (1) Census Year, (2) Population in Millions, (3) Population Growth Rate, (4) Birth Rate o/oo, (5) Death Rate o/oo, (6) Infant Death Rate o/oo, (7) Life Expectancy, Men, (8) Life Expectancy, Women, (9) Pop under 15 Years, (10) % Urban Population.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Salvador	71	3.5	3.8	40	10	67	57	60	43	38
Nicaragua	71	1.8	3.7	43	8	45	60	60	42	47
Venezuela	71	10.7	3.6	38	7	47	59	62	42	78
Rep Domin	72	4.3	3.6	40	6	60	57	58	43	40
Mexico	70	48.3	3.5	42	10	69	58	60	44	50 (1960)
Ecuador	72E ^x	6.5	3.4	38	11	91	51	54	45	36 (1962)
Panama	71	1.5	3.3	37	7	41	58	61	42	48
Colombia	70E	22.4	3.2	47	15	75	48	54	47	35(1964) E ^x)
Brasil	70	94.5	3.2	38	10		39	46	42	56
Paraguay	72	2.3	3.2	33		35	49	49	47	37
Peru	72	13.5	3.1	32	7	60	53	56	43	60
Guyana	70	0.8	3.0	35	8	38	59	63	32	16 (1960)
Guatemala	71	5.3	2.9	43	15	91	48	50	43	34 (1964)
Bolivia	72E	5.2	2.6	24	7	77	50	50	42	30 (1950)
Chile	70	8.8	2.4	27	9	92	59	66	39	76
Jamaica	70	2.0	2.3	32	7	32	63	67	43	
Haiti	71	5.0	2.0	49			45	45	43	19
Argentina	70	23.3	1.5	22	9	63	63	69	29	63
Uruguay	70E	2.9	1.2	22	9	54	66	72	28	82
Barbados	70	0.2	1.1	20	9	46	63	67	38	41
Trinidad	70	1.0		25	7	34	64	68	43	42
Costa Rica	71	1.8	4.0	33	7	62	62	65	42	35

Data Sources: America en Cifras, 1972;

Departamento Nal de Planeación, Colombia, Bogotá 1969, (2) p.5.

E^x) = Estimated

U.N. 1971 (2).

in 'natural' lower rates due to better birth control measures and practices than in the other countries.

The problem is of very great importance in the case of Colombia. The country has in effect the highest birth rates on the continent, 47 per thousand population. Additionally the highest death rates together with Guatemala 15 per thousand. Moreover, the fourth highest infant mortality rate on the continent after Guatemala, Ecuador and Chile.

Colombia and Paraguay share also the first place among all the countries in Latin America, with the largest number of young dependants, which is about 50 per cent of the total population and which imposes on the country very heavy investments necessary for the education and sustainment of this part of the population. The country, moreover, does not fulfill this function.

Great reductions in the death rate in the years after World War Two from 25 to 15 per thousand in Colombia have been accompanied by high birth rates. Thus the population growth rates have accelerated from 2.4 per cent in the period 1938-1951, to 3.2 in the period 1951-1964.

The relation of births to deaths in Colombia has only apparently been the same in the countryside and in the urban areas. No official statistics are found in this respect although some studies have come nearer to this question:

"Both birth and death rates appear to be higher among rural than among urban residents. In addition, differences in crude birth rates do not reflect fertility differences in the two populations, for rural-urban migration has reduced the proportion of women of childbearing age in the rural compared to the urban population. Without reliable vital statistics or other evidence on fertility in Colombia by region, one can only show that the ratio of young children (less than five years of age) to women in child bearing ages (15-49) was about 40 per cent higher in rural than in urban areas in 1964. Although this indirect measure of fertility is likely to understate the actual difference in the frequency of births to rural and urban women of similar age composition, it strongly confirms that differences in birth rates are substantial between these two groups in the population. Note: First this indirect measure of fertility conceals the offsetting effects of more frequent births and early child deaths to rural than to urban women. And second, urban women of childbearing age are more concentrated in the high fertility younger age groups than rural women and thus would, other things equal be expected to show a higher ratio of children to women."¹⁾

1) T. P. Shultz, 1969, pp. 4, 5.

Diagram 1.

Colombia. Rural, Urban and Total Population. Thresholds for urban pop.
= 30,000 inhabitants.

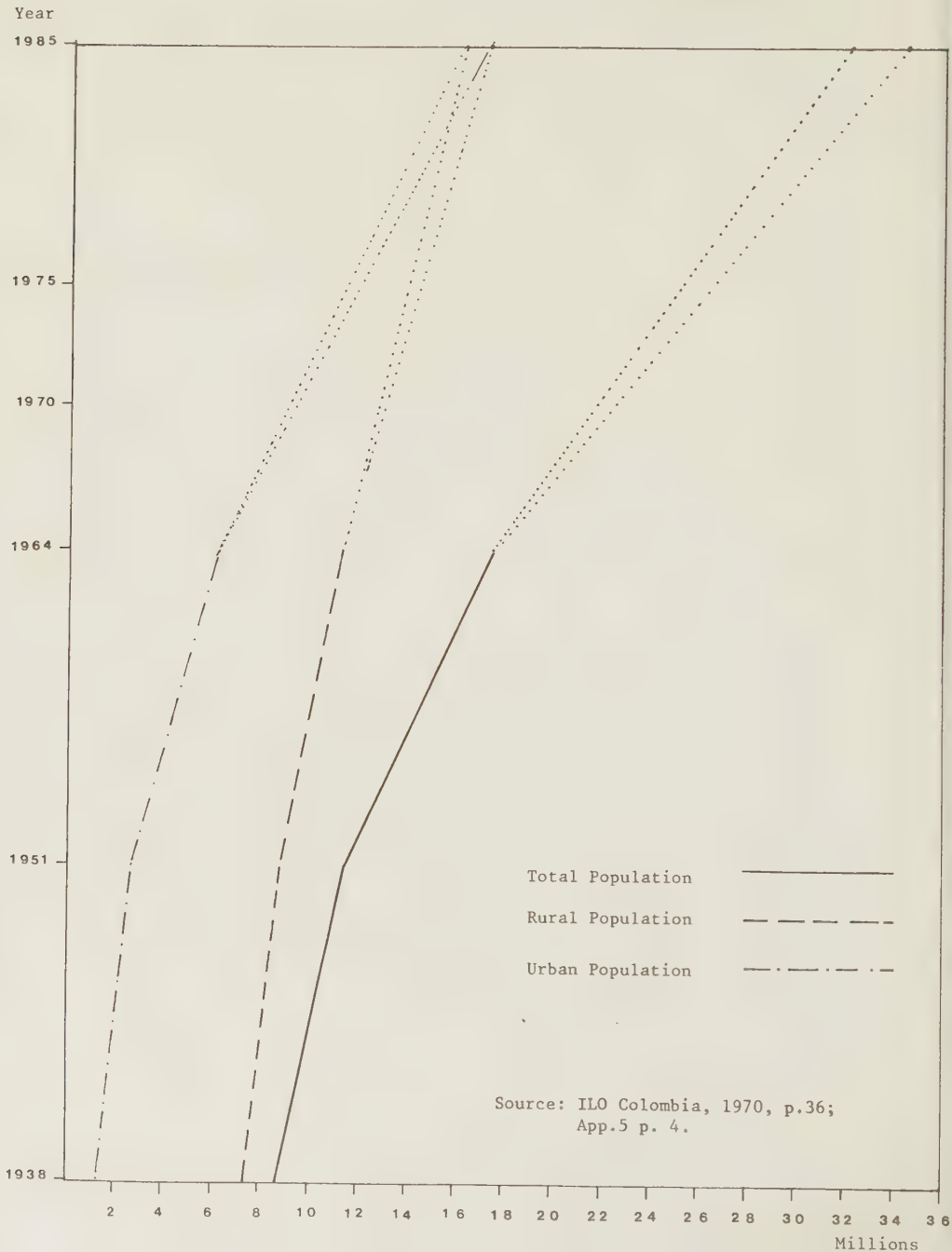
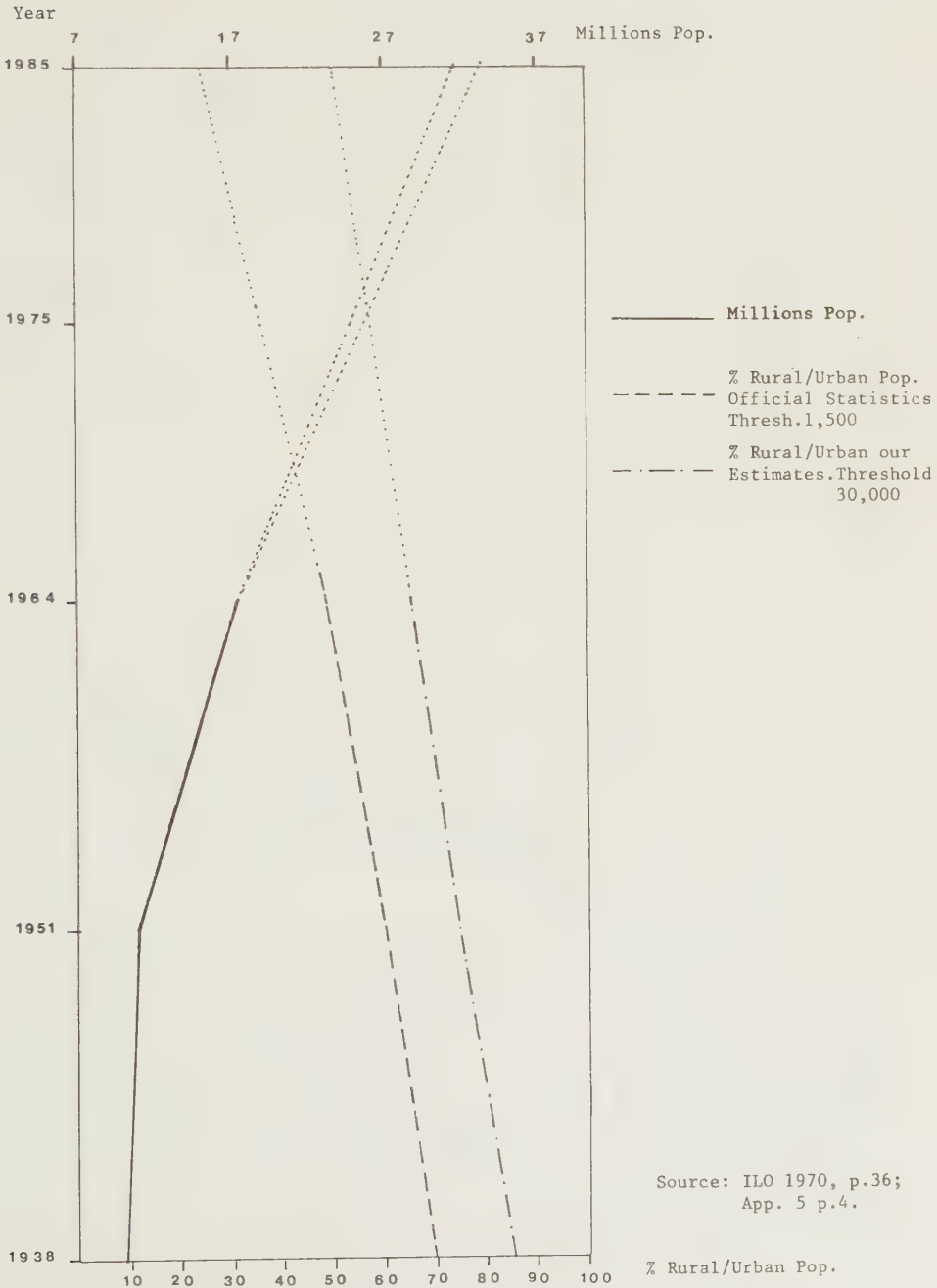


Diagram 2.

Colombia. Rural-Urban Population, Percentages.



2.1 Urban, Rural and Total Population

The Colombian population is expected to be between 32.5 and 34.5 million in 1985. Both rural and urban areas grow in population, but the urban areas have grown at a rate of 6.5 per cent per year, while the rural ones grew only at a rate of 1.9, and the country as a whole 3.2, between 1951 and 1964.¹⁾

A very high 85 per cent of the country's population was living in the rural areas - including rural towns up to the 30,000 population limit, in 1938. In 1985, it is expected that the rural and the urban population will be equal. See diagrams 1 and 2.

This quite slow grow of the rural population and the quite slow diminishing in percentages in the importance of the rural population, from 85 to 50 per cent in about 50 years, is happening at the same time as a very fast process of overconcentration of the population in the cities is taking place, with growth rates for urban areas larger than 500,000 between 6 and 7.5 per cent per year.

The overconcentration of the urban population in a few places, will thus be given special attention in this study.

2.2 Rural and Urban Population Pyramids

The Colombian population pyramid for the census years of 1951, 1964 and estimates for the year 1970, are shown in diagram 3. It is noticeable:

1. The continuously widening base of young dependants, characteristic of the backward countries. In 1951, the population under 15 years of age constituted 43 per cent of the total population, in 1964 they had increased to 47 per cent, and in 1970 they were estimated to be 48 per cent.

2. A comparatively small sector of the population between 15 and 65 years of age.

3. An almost unimportant quantity of people over 65 years of age.

These pyramids reflect also the very high reductions in child deaths due to advances in tropical medicine from the time of World War Two.

The rural-urban division of the population pyramids for the years 1951 and 1964 are shown in diagrams 4 and 5. These pyramids were done with the only statistics available, the Colombian official ones, which include as urban all villages, rural towns and urban areas larger than 1,500 inhabitants. Although for most parts of the study we have done a reclassification,

1) ILO, 1970, p. 36.

Diagram 3.

Colombia. Population by sex and age
1951, 64, 70 estimates in
hundred thousands.

Data: 1961 och 1964 -

Col. Census p. 29

1970 America en Cifras 1972 p.12.

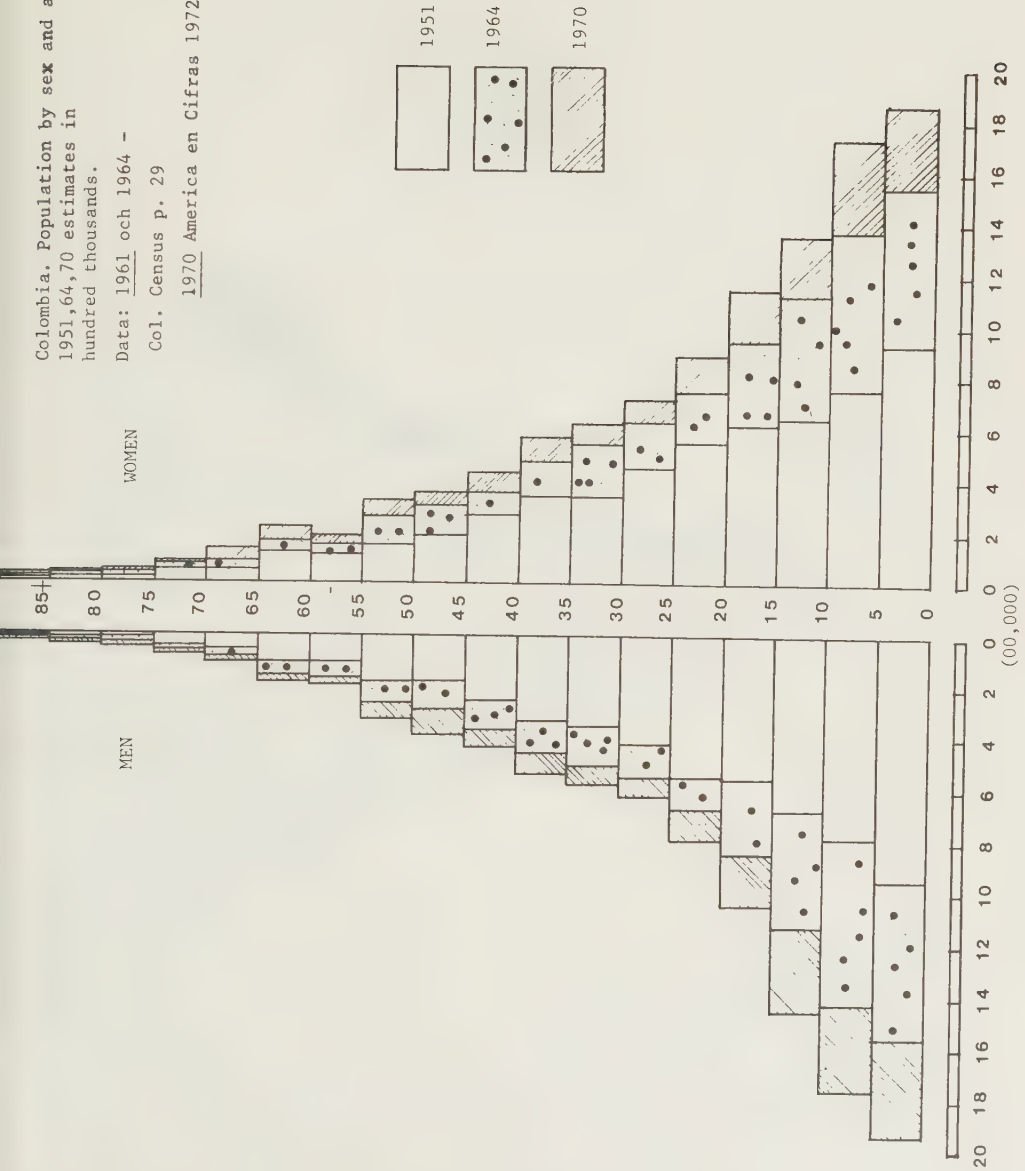


Diagram 4.

1951 Colombia. Urban-rural population
by age and sex in percentages.
Data Source: Census 1964, p. 29
Adapted from: Nordström, Olof, 1957.

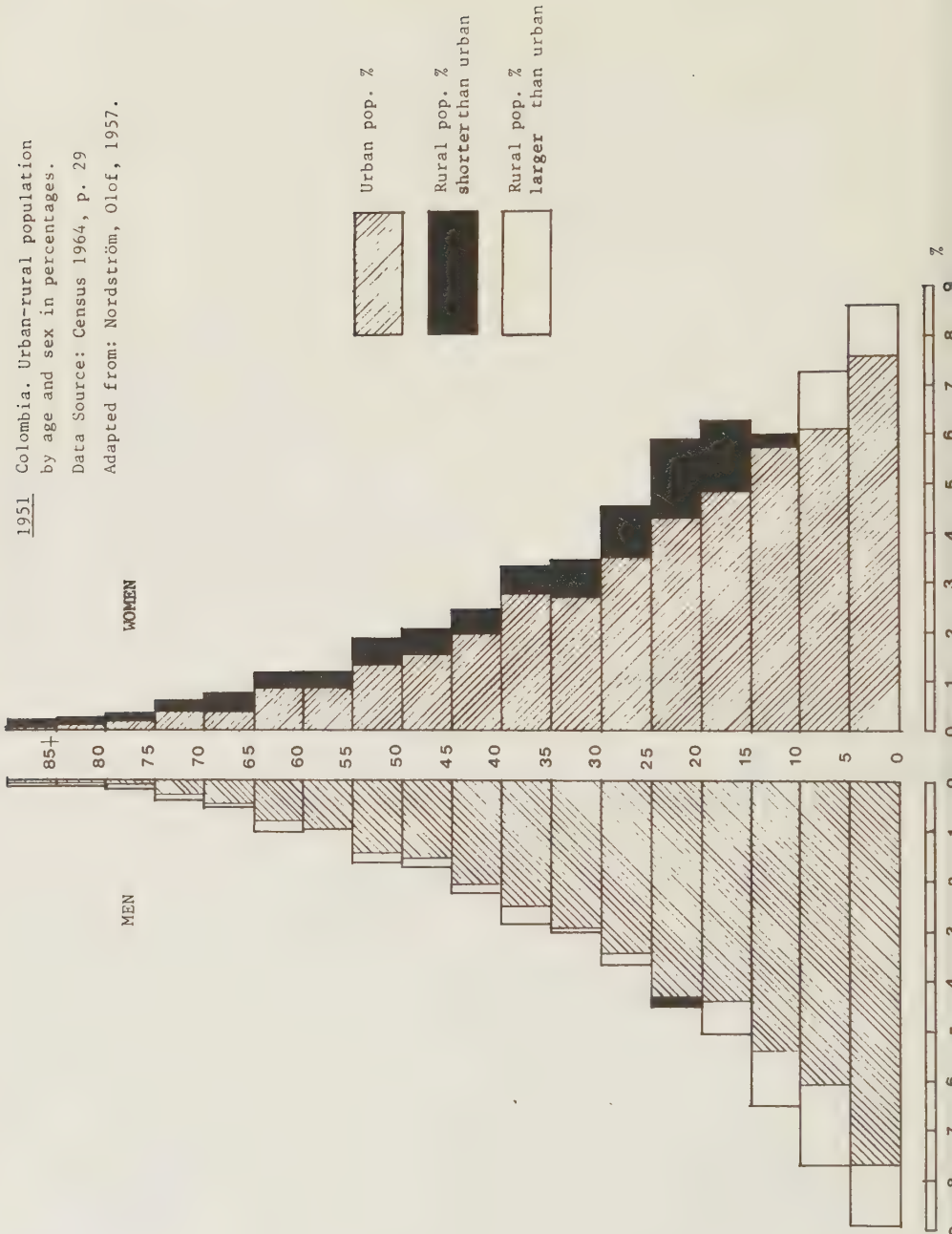
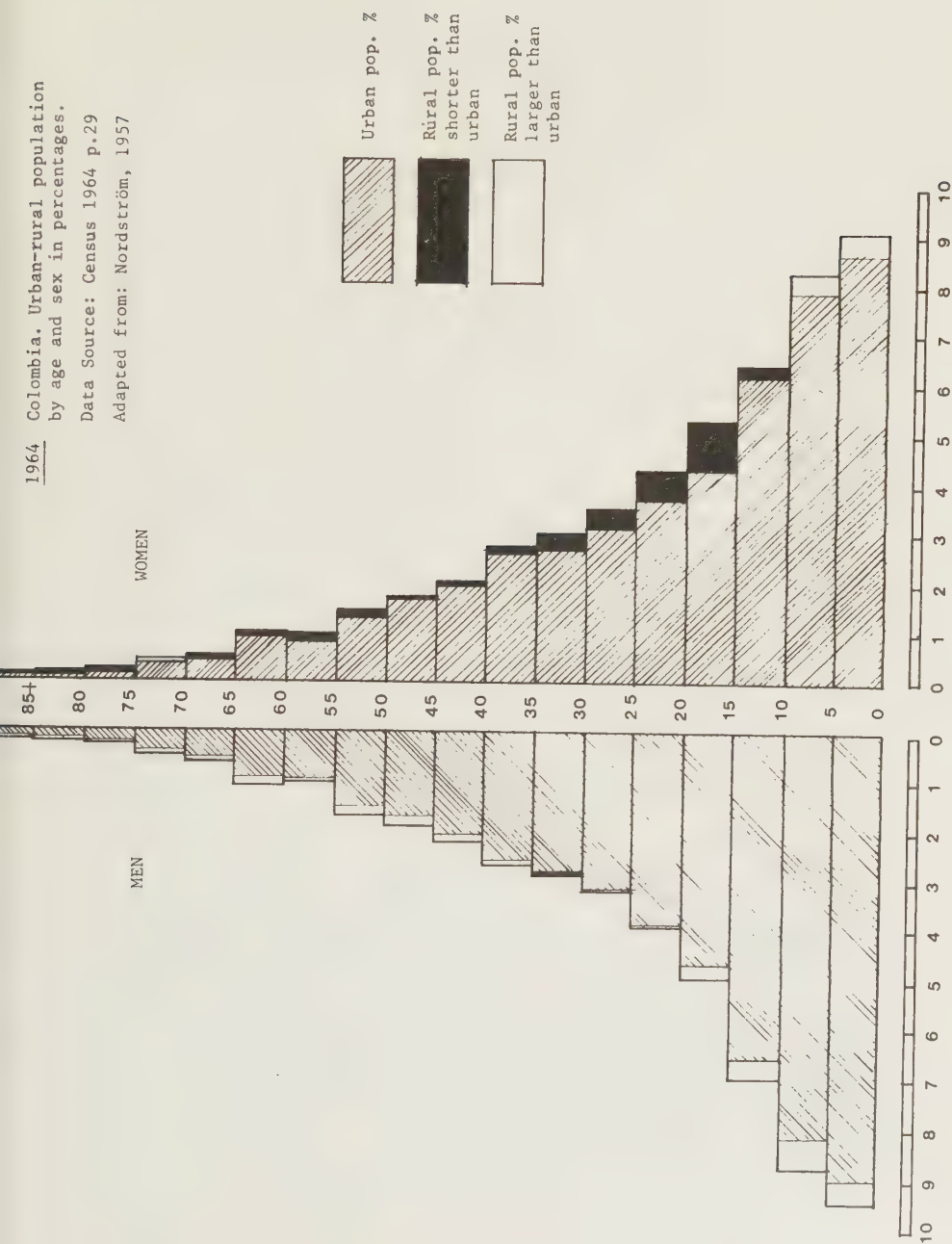


Diagram 5.

1964 Colombia. Urban-rural population
by age and sex in percentages.
Data Source: Census 1964 p.29
Adapted from: Nordström, 1957



having as threshold for urban areas those cities over 30,000, it has not been possible in this case. The population living in rural towns and included in the official statistics as urban was 1.7 and 2.9 million in 1951 and 1964 respectively. They made up to 15 and 17 per cent of the total population of the country.

We can notice in these pyramids:

1. A heavy concentration of young people in the rural areas, even in comparison with the already very large percentages of young people in the cities. The large percentages in the countryside include all boys up to 20 years of age and all girls up to 10.

2. A very large proportion of women, especially the young in working ages, were concentrated in the urban areas, many employed as maids in family houses, with low wages and hard jobs.

3. An overconcentration of men in the working ages to the rural areas, most of them employed in unproductive jobs mostly in subsistence types of agriculture.

The overconcentration of women to the urban areas and of men to the rural ones continued to exist in 1964 although on a minor scale.

The large migration of women to the urban areas is not only typical for Colombia, but also for the rest of Latin America. In Asia and Africa migration to the urban areas is mainly a men's affair. Much of this great difference could perhaps be explained by social customs, "women are rarely permitted to migrate alone",¹⁾ - in Mediterranean, South Asian and African Countries - and also explained by social customs as to who is to perform the subsistence agricultural tasks. The larger rates of urbanization in Latin America than in Africa and Asia, could perhaps also explain part of the difference, as there are more possible jobs for women in the urban areas - to work as servants.

During the industrial revolution in England a larger migration of women than of men was also observed by Ravenstein, and elevated to the category of "Law of Migration".²⁾ However, there are even exceptions to the law in Latin America: "Where the impetus to urbanization is very strong, as in Caracas and Sao Paulo, the expansion of male employment opportunities may be sufficient to secure a migrant ratio between the sexes of nearly one".³⁾

1) John Stuart MacDonald. Migration and the Population of Ciudad Guayana, in Rodwin, Lloyd, ed. 1969, p. 111.

2) Shultz, Nelson and Slighon, 1971, p. 53.

3) John Stuart, Op. Cit. p. 53.

2.3 Regional Population Density

There are wide differences in the population density for the different regions, and also between the averages for the whole country and those for the populated regions.

Table 3

Colombian Population Densities (Km²)

	1938	1951	1964
Total Country	7.5	13.0	15.5
Populated Regions	25.0	35.5	54.0

The population average for the populated regions is roughly three times as that for the country as a whole. The population densities for the different departamentos are shown in diagram 6 and on map 4.

There is a group of departamentos with high densities of between 75 and 250 persons per km². This group is made up of Atlántico, Cundinamarca, Caldas and Valle. The first of the departamentos is on the Caribbean plains, and contains - Barranquilla - the fourth largest city in the country. The other three departamentos make up a common area in the core of the Andean mountains. Two of the three largest cities - Bogotá and Cali - are here.

There is a second group of departamentos with densities between 30 and 40 persons per km² - Antioquia, Santander, Bolivar. These departamentos are surrounding the ones with the highest densities, and all of them are in the mountains of the Andes.

Surrounding the last group of departamentos and in a descending scale there is a last group with densities of between 10 and 30 persons per km².

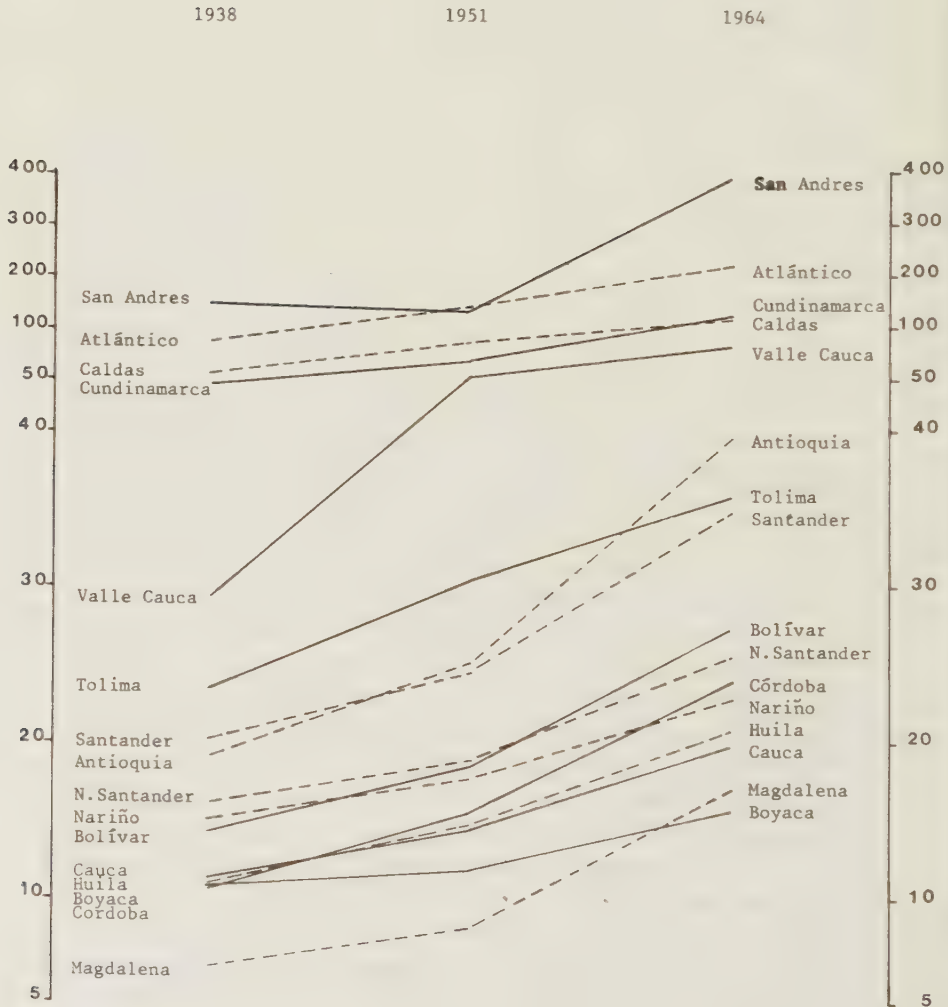
The profile of the population density in the country looks like a great plain which has at its center a series of high and very high mountains, and which has also a very high peak at one of the borders of the plain.

Interestingly, although the densities have changed in very different proportions for the departamentos since 1938, - even through important migratory flows among the regions - the ranking of the departamentos has remained very stable since that year. This means that those departamentos that were part of the density plains in 1938, have continued to be it until 1964. Those which were peaks, have also continued to be peaks. The root of the actual location of the population is thus far back in the time dimension.

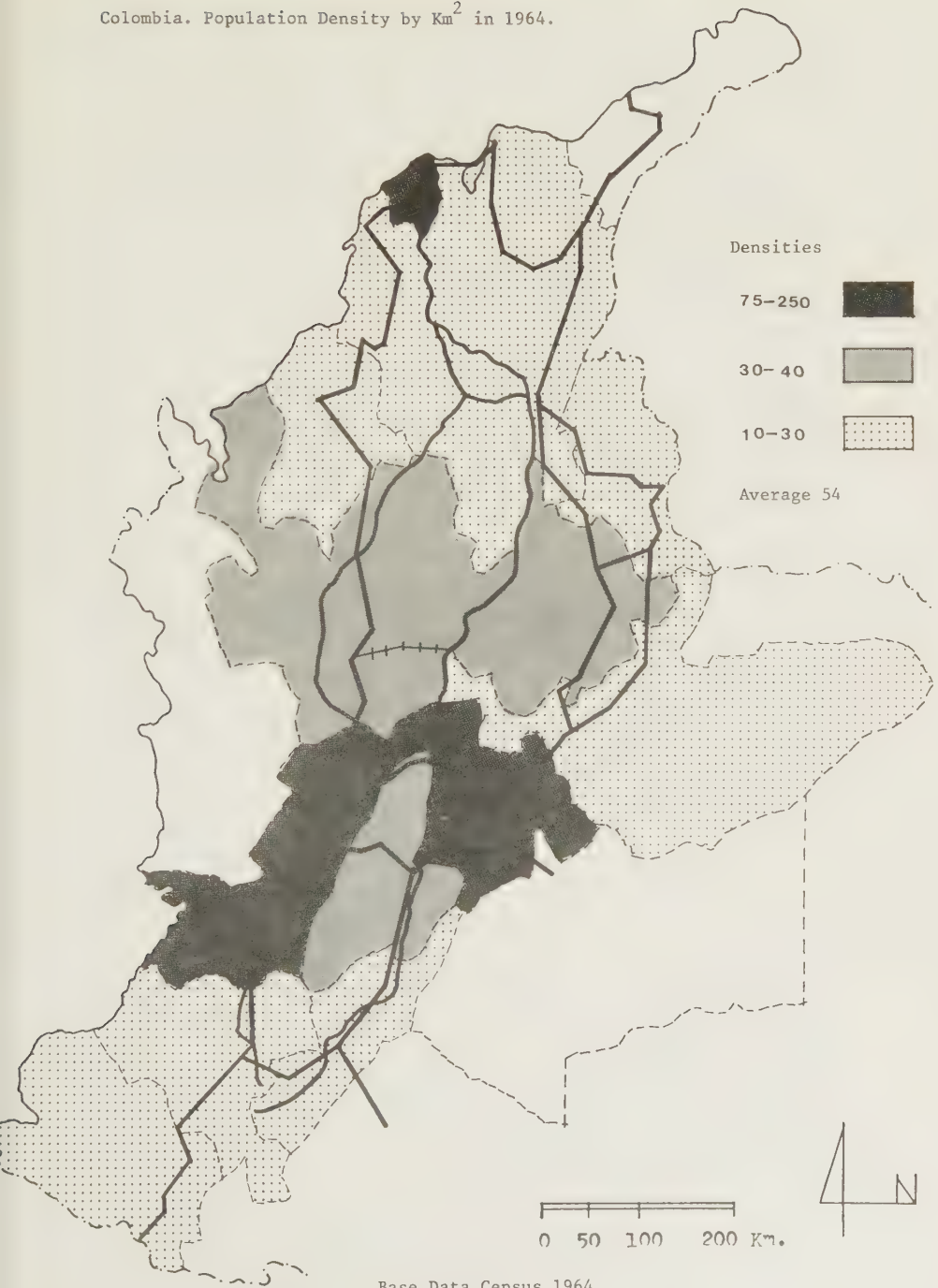
Diagram 6.

Colombia. Population Density by Km². 1938, 1951 and 1964.

Base Data: Census 1964.



Map 4.

Colombia. Population Density by Km^2 in 1964.

It would have been very interesting to see a further analysis of the population densities in the departamentos by rural and urban areas. There are several problems with respect to this.

In relation to the rural densities:

1. It would be very misleading to mix in one statistical unit most of the peasants who own small plots of land, with the owners of large portions of the land. The result would be an average value without much application for our study.¹⁾

2. There are also large stretches of land in every departamento which are not apt for agricultural use and which can not be taken into account when studying the rural densities.

We have compromised and in the chapter on land ownership structure have shown the diverse types of extension of land tenure for each departamento. Those statistics show the variations that the density dimension has, at the same time that non cultivable lands have been excluded.

In relation to the urban densities:

1. The main problem is the inclusion in the Colombian statistics of all towns over 1,500 inhabitants as urban areas, when by almost any standards of consideration these areas are no more than agricultural towns and villages. As remarked before, we have come to the conclusion that only those areas that have more than 30,000 inhabitants should be included as urban, and every town or village under this limit should be called rural town or village. An analysis of the urban areas is presented in next chapter.

3. Summary

1. We have in this chapter made a short survey of the main physico-geographical characteristics of the country. We have also found a very near relation between the existing patterns of settlement and the natural features of the country.

2. Two regions were found covering only one third of the area of the country, and containing almost all the Colombian population. They are the Andean and Caribbean regions.

The main populated region is in the high mountains of the Andes. It is here four fifths of the population of the country reside. The highest den-

1) Jacobsson, Arne, 1969, Chpt. 2.

sities of the population are also found in this region.

3. Very wide differences were found between the climates of the inhabited regions. The coastal region is very warm, and the kinds of agricultural products are only tropical ones. The Andean region has all the possible climates and consequently very wide resources for the variation in the agricultural production and for the interchange of products of the different climates. Half of the population of the Andes was found living in the temperate climates, that are among other things the most favourable for the production of coffee which is the most important product of the country.

4. With respect to the distribution of the rural and urban population it was found a much larger concentration of the youngest to the rural areas, with rather clear indications of much higher birth rates in the rural areas. Many more of the women of all ages but especially of working ages are concentrated to the urban areas. It is evident that their overconcentration has diminished during the sixties, but apparently it has always been easier for them to find employment in the urban areas, while more of the subsistence agricultural jobs are taken by men.

5. The population growth variable revised in this chapter appeared as a very large and complex problem on the Colombian scene. Due to extremely high birth rates, the country was found to be increasing its population at one of the highest rates in the world. This extremely high increase in the population is occurring at a very critical time, when the country does not have the capacity to attend the most urgent needs of its population.

It is evident that such important things as the provision of jobs, the provision of social services as health, education and housing, and the provision of food for the country in the future, are highly dependent on a very considerable diminishing of the high birth rates.

CHAPTER THREE. THE RURAL AND URBAN POPULATION CONCENTRATION PROCESS

In this chapter an attempt is made to show the very rapid processes taking place in Colombia, when the rural and urban populations grow, large sectors of the rural population migrate to the urban areas and great migration takes place between the urban areas always following a trend to the

1. Diminishing of the rural population
2. Overconcentration of the urban population around a few large urban centra, specially through the migration of the inhabitants of the small towns to cities larger than 500,000.
3. The rural colonization of a few "frontier" yet unsettled regions within the country.

1. Regional Concentration of the Population

The important changes in the population of each departamento, as a percentage of the total population of the country for the period 1938-1964 can be seen in diagram 1 and on map 1. The different departamentos can be classified into two broad groups, those which show increases and those with decreases in their percentages.

The relations shown in the table and diagram reflect variations among the departamentos due to migration to and from other departamentos added to the vegetative population growth rates in every one of them. It follows then that,

1. Two departamentos with very high population gains in the period were found, namely Cundinamarca and Valle. They are located at the center of the Andean region, and have the first and third ranking places with respect to the total population of the country.

Additionally they contain the first and third largest cities of the country - Bogotá and Cali - and are not neighbours with each other.

2. Two neighbouring departamentos on the Caribbean coast - Atlántico with the fourth largest city of the country - Barranquilla - and Magdalena - have had high gains in population percentages.

3. Two neighbouring departamentos, Antioquia in the Andean region, which has the second city in the country - Medellín - and Córdoba in the Caribbean, have had slight gains in their population percentages. We must also notice that in the 'frontier' regions at the east of the Andes, three territories had slight gains. They were Meta, Caqueta and Putumayo. We have only included Meta in our map, as it is the most important of them.

Map 1.

Changes in Population Percentages by Departamentos. 1938-1964.

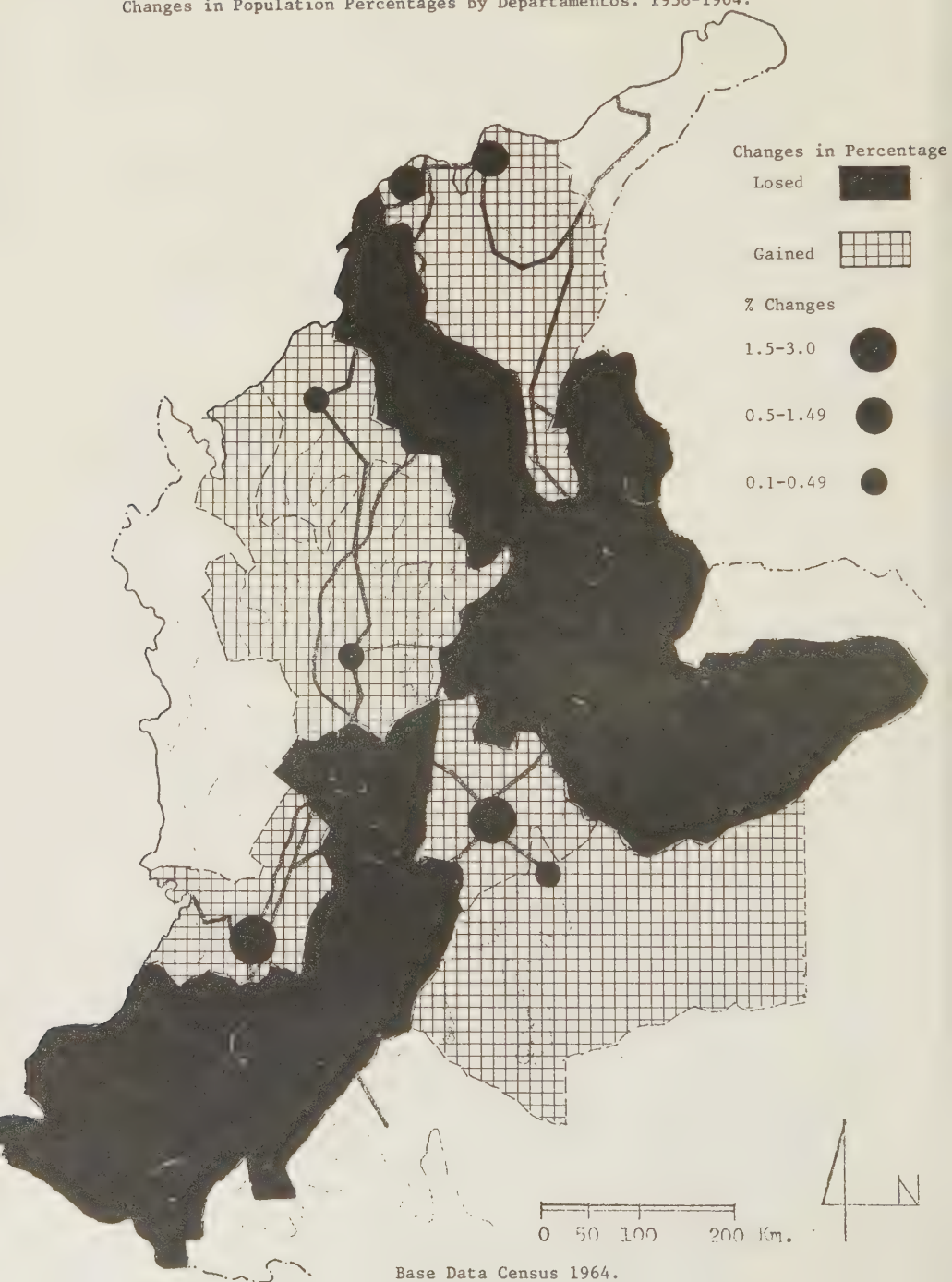


Diagram 1.

Per cent divisions of the population in the Departamentos; 1938, 1951 and 1964.
Base Data: Census 1964.



4. The rest of the departamentos had population percent losses, most of them high losses. Eight of the nine losers are located in the Andean region.

5. Half of the six departamentos that won in population are in the Andean and the other half in the Caribbean region.

6. The four largest urban areas of the country, the most important ones, with populations between 500,000-1,700,000 are located in Cundinamarca, Valle, Antioquia, and Atlántico, four of the six regions which won in population percentages. This fact tells about the attraction force the urban areas have had.

The population gains in the other two departamentos seems to have more relation to the expansion of small urban centers in the core of agricultural regions, than to the attraction force exerted by dominant urban places in those departamentos. This is as well the case of population gains in the frontier regions.

The next table shows the percentages of the total migration to their respective departamentos that the cities have attracted up to 1964.

Table 1

Migration to Large Urban Areas in Departamentos with Population Percent Increases up to 1964.

Departamento	Capital City	Migrants to City	% Migrants to Departamento
Atlántico	Barranquilla	153,000	94.5
Cundinamarca	Bogotá	495,000	74.5
Valle	Cali	239,000	42.0
Antioquia	Medellín	67,000	41.0
Córdoba	Montería	12,000	24.0
Magdalena	Sta. Marta	22,500	15.0

Data Source: Census 1964.

It is thus very important to notice:

1. Six departamentos have won in population percentages up to 1964.
2. There has been migration to the six departamentos and in four of the cases the large urban areas have attracted a significant percentage of the migrants. However, all the six departamentos have not won their increases in population by migration. Only four of the departamentos were net migration winners. Antioquia - with Medellín the second largest city in the

country - and Córdoba, had larger numbers of outgoing migrants. The gains in percentages in those departamentos with respect to the total population of the country should thus be explained by higher birth rates.

Antioquia has always been a departamento with the largest sized families in the country. Families with more than ten children are not infrequent even today. Córdoba, a former frontier isolated departamento now in development, must have very high increases in the natural growth of its rural population.

1.1 Population Growth Rates

The population of Colombia has grown at the following rates:

2.2	per	cent	per	year	between	1938-1951
3.2	"	"	"	"	"	1951-1964
2.7	"	"	"	"	"	1938-1964

Population growth rates for the departamentos in the period 1938-1964 can be seen on map 2. Growth rates for the populated regions are much the same as those for the country as a whole.

1. The fastest growth rates are found at Valle in the Andean region, which counts with Cali, the third ranking city in the country. It is followed by Atlántico and Magdalena on the Caribbean, where important harbors are located. Atlántico contains Barranquilla the four largest city. Magdalena is a very fast expanding agricultural departamento, but its largest urban area is only the sixteenth in the country. This departamento together with Córdoba were the only ones in the country where the rural population increased faster than the total population growth rates for the country. Their urban population grew also at higher rates than the average for the urban areas.

2. The first three departamentos are followed by Cundinamarca and Córdoba, also with population growth rates higher than the average for the country. Bogotá, the largest city in the country, is located in Cundinamarca. Córdoba is an expanding agricultural area with the twelfth largest urban area.

3. The remaining departamentos had population growth rates lower than the average for the country. The lowest growth rates are found in departamentos, predominantly agricultural, as Boyacá, Nariño, Norte Santander and Tolima. With only one exception, the ten departamentos with lower than average growth rates are in the Andean region, and form a continuous area.

4. Some of the departamentos with lower than average growth rates have at the same time large regional and subregional urban centers that are growing very fast. The growth rates of those urban centers do not have a connection with the low growth rates for the departamentos as a whole. We can notice it in next table:

Table 2

Population Growth Rates in Some Departamentos With Lower than the Average Rates and their Urban Areas.

Departamentos	Growth Rates 38-64	Urban Areas	Growth Rates 38-64	City Size 1964	City Ranking
Antioquia	2.6	Medellín	6.5	773,000	2
Bolívar	2.6	Cartagena	4.1	242,000	5
Santander	1.9	Bucaramanga	6.0	230,000	6
Caldas	2.5	Manizales	3.7	222,000	7
Caldas	2.5	Armenia	4.5	137,000	12
Caldas	2.5	Pereira	4.5	188,000	8
N.Santander	1.7	Cúcuta	4.7	175,000	9
Tolima	1.6	Ibagué	3.7	164,000	10
Nariño		Pasto	3.2	113,000	14
Total Country	2.7		4.8		

Data Source: Census 1964.

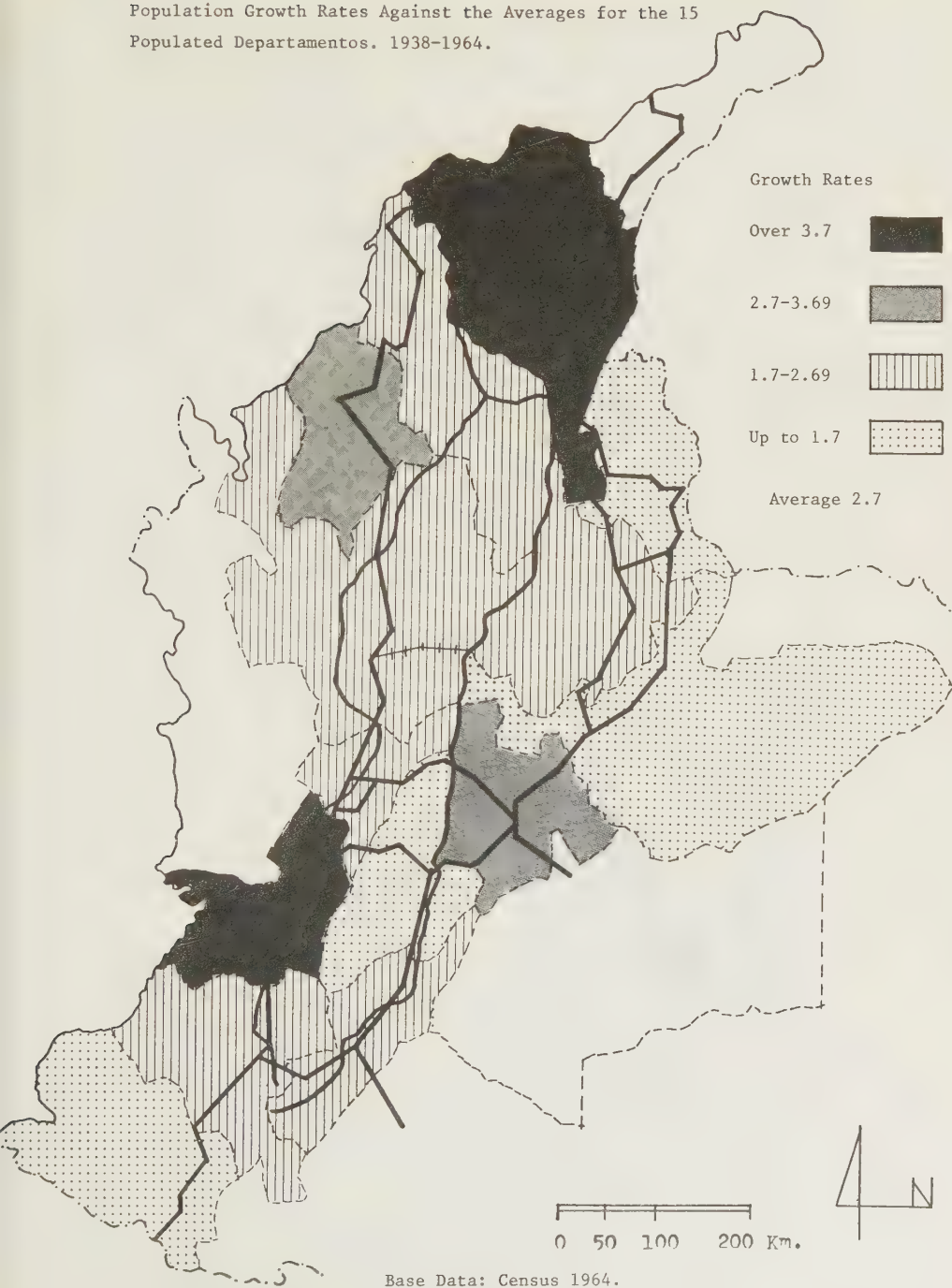
A fast concentration and growth of the population is thus taking place in urban areas, centers of regional, subregional or national importance. The analysis we have done is important for learning which departamentos have been developing at higher rates than the country as a whole. But it does not show the real concentrations of the population in departamentos which otherwise should be considered as decadent or "downward transitional areas" to use John Friedmann's term which means:

"... an area of old, established settlement whose essentially rural economy is stagnant or in decline and whose peculiar combination of resources suggests as optimal a less intensive development than in the past."¹⁾

1) John Friedmann, 1966, p. XV.

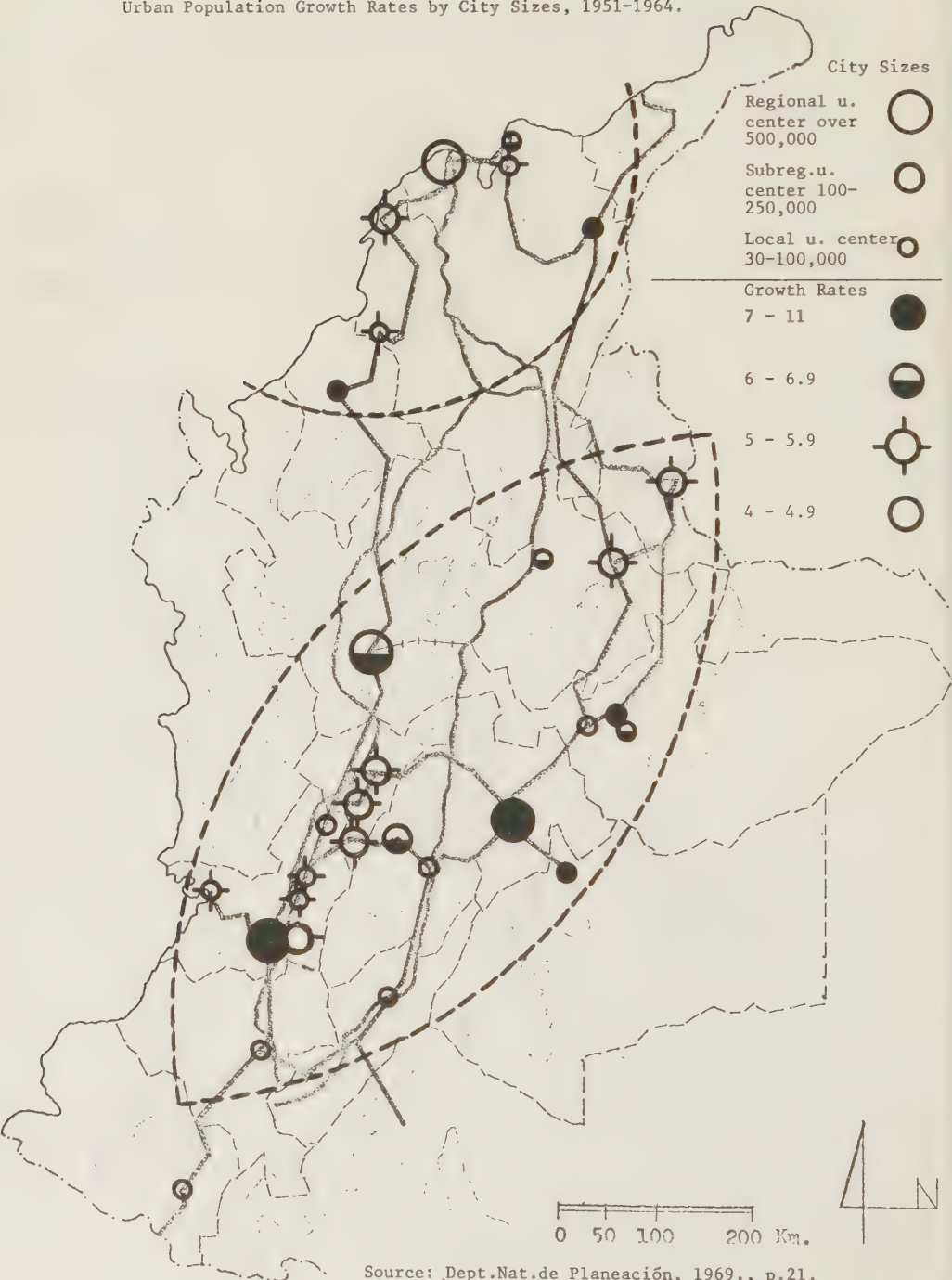
Map 2.

Population Growth Rates Against the Averages for the 15
Populated Departamentos. 1938-1964.



Map 3.

Urban Population Growth Rates by City Sizes, 1951-1964.



The development of the Colombian population has very strong relations with those urban areas which have regional, subregional or local importance, even in departamentos where as we have seen it, the population tendency is downward due to emigration to other departamentos.

We do not have the growth rates for all of the urban areas for the period 1938-1964, but we do have for the period 1951-1964. See map 3. The urban growth rates variate between 4 and 11 per cent per year,¹⁾ independently of whether the departamentos have high or low growth rates. Urban growth rates are well above the 3.2 rate for the country in the same period.

The urban areas are distributed in a very well defined pattern forming two regions. One in the low lands of warm climates of the Caribbean coast. And the second and largest in the mountains and valleys of the Andes, with very varied climates. There is a very wide no-man's area in between the two large regions of cities.

A last interesting point to observe is that the unsettled regions at the least of the Andes have had among the highest population growth rates in the period 1938-1964. However, as the population of those regions is so small, very low migration inflows at this early stage of settlement represent high increase rates.

1.2 Rural Population Growth Rates

During the period 1938-1964 the Colombian rural population grew, but at a pace 3.8 times less than the population of the urban areas.

Table 3

Colombian Urban and Rural Population Growth Rates.

	1938-1951	1951-1964	1938-1964
Total Country	2.2	3.2	2.7
Rural Areas	1.3	1.9	1.6
Urban Areas	5.8	6.5	6.1

Data Sources: Census of Colombia, Op.Cit. p. 31.

1) Departamento Nacional de Planeación, 1969, p. 21.

There are several important things to notice in this table:

1. There is a great difference between the total population growth rates for the two periods under analysis. The most probable reason is here a large underestimation and underreporting for the census of the year 1951. There was an open civil war in the country during those years, and many people must have been left outside the census.¹⁾ Many other people, between 200-300,000 are reported to have died during the war.²⁾

The fact that the data have such uncertainties, makes our study very imperfect. On the other hand, the largest movements of the population and their direction during those years are known, and have been given attention in the present study. It is thus possible to know the main directions of changes of spatial and non-spatial type among the population, although the real values are uncertain.

2. There have been very low population growth rates in the rural areas, 1.6 per cent per year for the period 1938-1964. Meanwhile the urban population has grown four times as fast. The great differences in growth rates between rural and urban areas may be explained by the very large migration to the urban areas.

The rural population's regional differentiation according to the growth rates for the period 1938-1964 can be seen on map 4.

1. Three departamentos have very high rural growth rates, more than twice the average for the country, and even higher than the average for the total population of the country. The departamentos are not neighbours. Two of them - Magdalena and Córdoba are located in the Caribbean region and the third - Meta - in the frontier regions at the east of the Andes. The three departamentos are in low, warm lands sparsely populated. None of them counts 5 per cent of the Colombian population, and the three of them are predominantly agricultural regions. None of them has an urban area of regional importance, but all of them are neighbours of departamentos where regional urban centers are located.

It could be possible that the vicinity to areas of high economic growth spurs the growth of areas which have been sparsely populated and unexploited before.³⁾ The three departamentos have had high urban population growth rates in the past, at the same time as they were growing very fast in the countryside. These gains in rural population have been obtained through

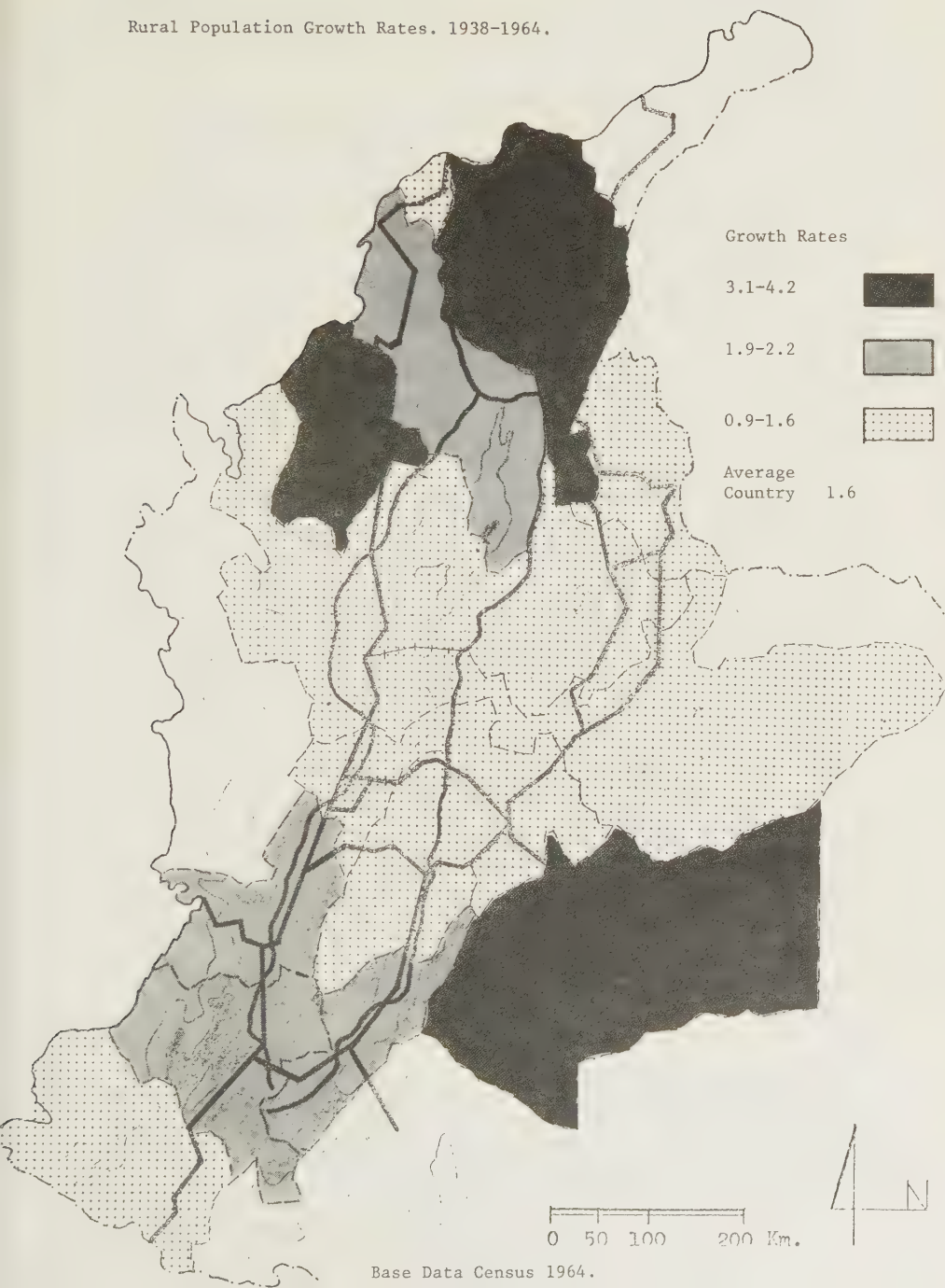
1) Depto Nacional de Planeación, 1969, p. 1.

2) Fals Borda, Guzman German, Umana, Eduardo, 1962.

3) For an excellent description of the process of wave settlement in frontier regions, see, Benjamin Higgins. Regional Interaction, the Frontier and Economic Growth, in Antoni Kuklinski, ed., 1972.

Map 4.

Rural Population Growth Rates. 1938-1964.



migration to the rural areas from other departamentos. In the case of Córdoba only through higher birth rates, as this departamento is migration loser.

The lands of these departamentos have traditionally been used for extensive cattle grazing, but lately especially the two departamentos on the Caribbean have received large investments in commercial cash crops cultives.

2. There is a second group of departamentos with rural population growth rates higher than the average. Three of them - Valle, Cauca, Huila - form a continuous area in the Andean region and the fourth of them - Bolivar - is in the Caribbean region. The case of the high rates for the three Andean departamentos is a very interesting one. This growth takes place in and around one of the departamentos which has one of the four regional urban centers of the country. In the case of the other three regional urban centers, rural growth rates below the average have been found for their departamentos, as a consequence of the strong migration to the city. We do not see any clear reasons that could explain this case, when further to the south, farther away from the regional urban centers of the Andean region, another departamento - Nariño - is found with lower rural growth rates.

3. The remaining nine departamentos had growth rates lower than the average. Seven of them form a continuous area in the northern part of the Andean region. The departamentos with the two largest urban areas of the country - Cundinamarca, Antioquia - are located here and their cities, Bogotá and Medellín exert attraction power. Lower than the average is also the case for the departamento in the Caribbean region - Atlántico - where Barranquilla the regional urban center is located.

4. If we look at the growth rates on a regional way, we can observe that the Caribbean region is strongly expanding its rural population. In the northern part of the Andean area decreases the importance of the rural population while in the south it continues to grow at higher than the average rates. The frontier regions at the east of the Andes are also increasing their rural population very strongly.

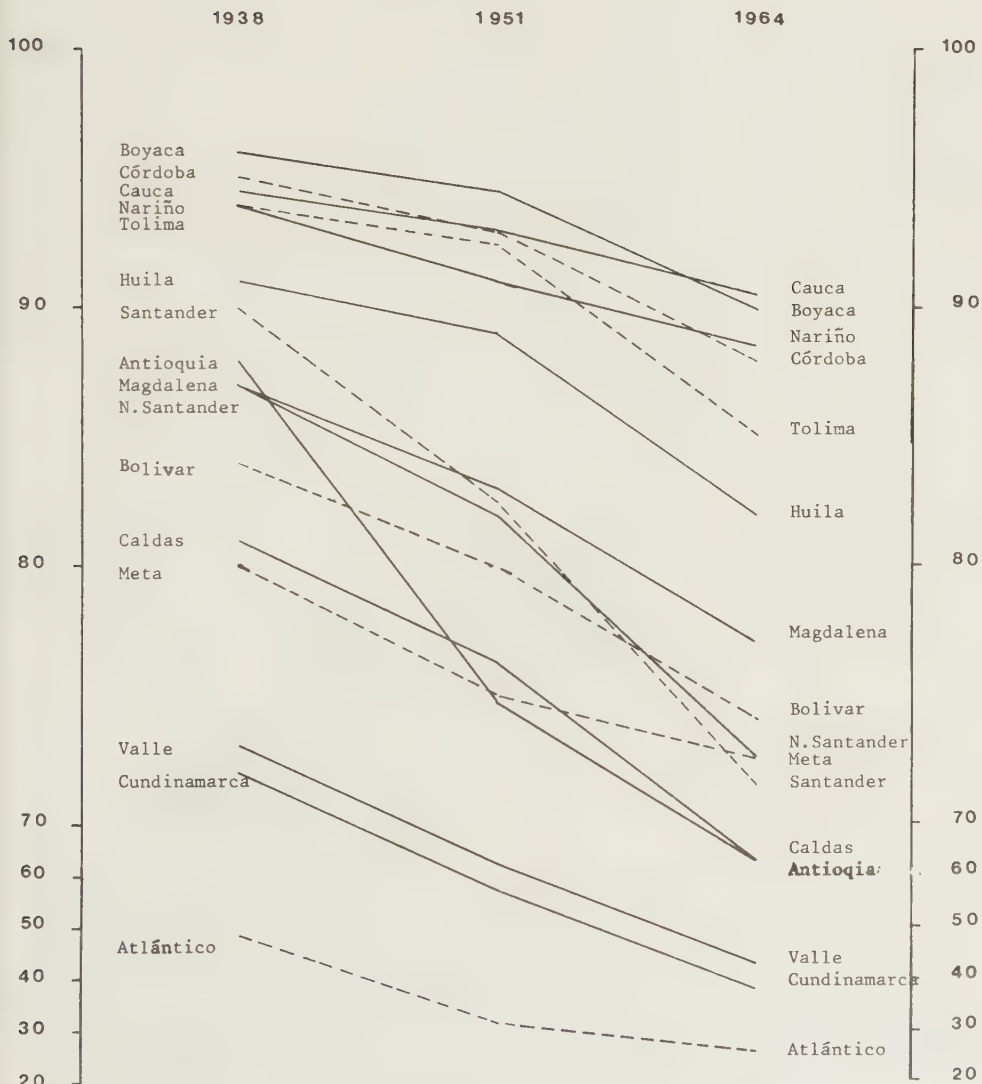
With only one exception, the effect of the regional urban centers has been strongly felt in the countryside lowering the growth rates through migration.

1.3 Rural Population as a Percentage of Total Population in Every Region

The rural population as a percentage of the total population in every departamento in the period 1938-1964 is shown in diagram 2.

Diagram 2.

Rural Population as a Percentage of Total Population in Every Departamento. 1938, 1951 and 1964.



Base Data Census 1964.

It serves both the purposes of showing the departamentos with more rural population and conversely the most urbanized ones. No dramatic changes in the ranking of the departamentos with respect to the rural population - conversely urbanization - have taken place since 1938, probably with the exception of Antioquia where Medellín, the second city of the country is located. All the departamentos that were more urbanized in 1938, have kept their positions as such. Yet the urbanization process advances very fast in all the departamentos.

Regional differentiation of the rural population as a percentage of the total population in each departamento, is shown on maps 5 and 6. First for the year 1938 and then for 1964. The departamentos have been classified on the maps according to their variation with respect to the average rural population for the country as a whole.

It must be noticed the very low degree of urbanization the country has. In 1938, only 20 per cent of the population was in those urban areas which were over the 30,000 limit in 1964. In that last year, 35 per cent of the population was to be considered as urban.

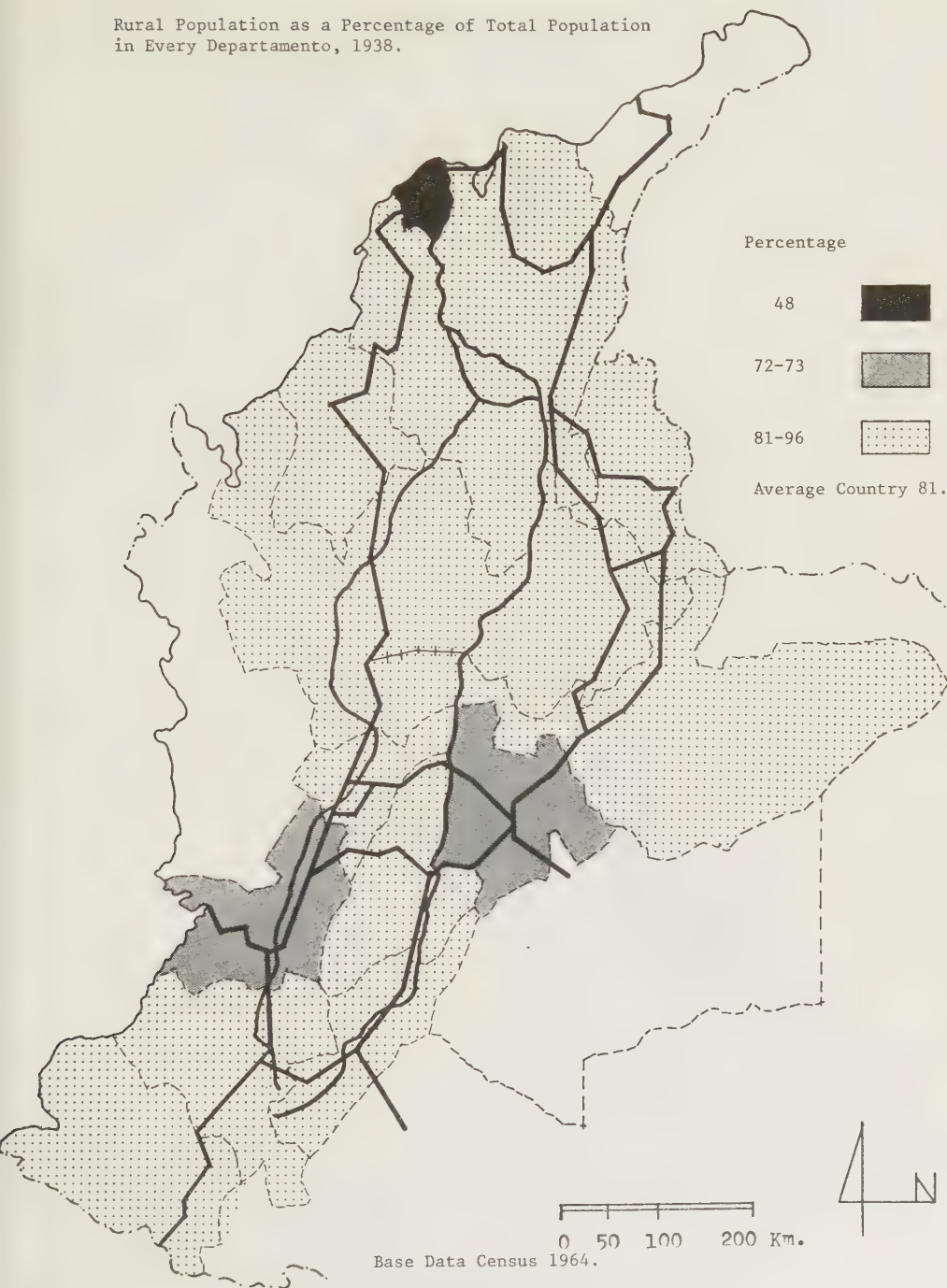
In 1938 only three departamentos had less than 70 per cent of their population in the rural areas. Two of them - Cundinamarca and Valle - were in the Andean region and the third - Atlántico - in the Caribbean. These departamentos were not neighbours. Characteristic for them was that three of the four large urban areas of regional importance - Bogotá, Cali, Barranquilla - were their respective capitals. The departamento with the second urban area of the country, Antioquia and Medellín City, appears with a lower degree of urbanization.

In 1964 there were already five departamentos with 40 per cent or more of their population in the urban areas. The rest of them had between 10 and 30 per cent. The most important changes were occurring in the core of the Andean region where the two new urbanizing departamentos - Antioquia and Caldas - had surged. The most urbanized areas of this region were forming now what has become the most important center for growth and urbanization in Colombia, a triangle in the mountains, the coffee rich region of the country. The importance of coffee, the main export product of the country gave this area its importance at the start. We will see a closer analysis of this development later on in this chapter.

All the departamentos had lost part of their population to the cities since 1938. Those which had lost more were Cundinamarca with a loss of 33 per cent, Valle with 30 per cent, Antioquia with 25 per cent and Atlántico with 22 per cent. These are precisely the departamentos where the four ur-

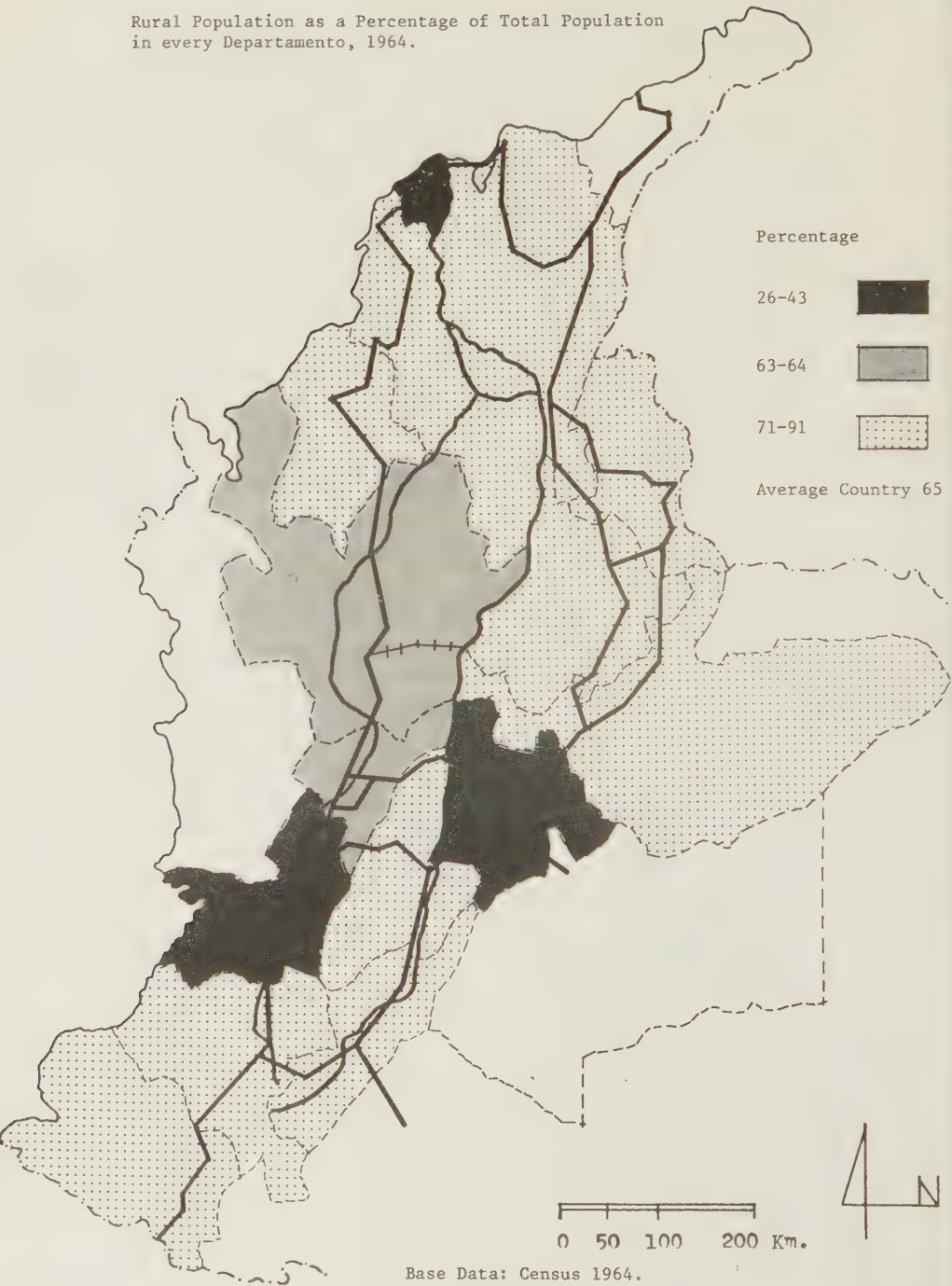
Map 5.

Rural Population as a Percentage of Total Population
in Every Departamento, 1938.



Map 6.

Rural Population as a Percentage of Total Population
in every Departamento, 1964.



ban centers of regional importance are located. Distance as a powerful variable was acting upon those areas nearer to the growth centers at this stage of the urbanization process. Distance will very probably be decisive even in the future, due to the importance that contacts with people who have migrated have for those who are prone to migrate, for deciding destination and size of migration.

The departamentos which continued to have the highest per cents of the population in the rural areas, about 90 per cent, were Cauca, Boyacá, Córdoba and Nariño. The three first ones are neighbours to those where the regional urban centers are located. The case of these four departamentos becomes very interesting, when we find out that all of them had large sized migration to the regional urban centers under whose influence they stood. Perhaps in the case of Córdoba the case is not so noticeable.

Due to the lack of urban centers that could offer the opportunity which the migrants were looking for, the migrants left their own departamentos for those ~~where~~ the urban centers of importance are located. We will see later on that the concentration process of the population in the regional urban centers is accompanied by the overconcentration of the production of goods and services in these centers, leaving the remaining urban areas in a position of underdevelopment, of lack of resources, and of lack of possibilities to offer a minimum of services to their own urban population and much less to their own hinterland.

In this way the rural population in departamentos without urban areas of regional or sub-regional importance, remained high in relation to the population of their departamentos, hiding the fact large numbers of migrants resettled in the regional urban centers in other departamentos.

1.3.1 Rural Population as a Percentage of Total Population of the Country.

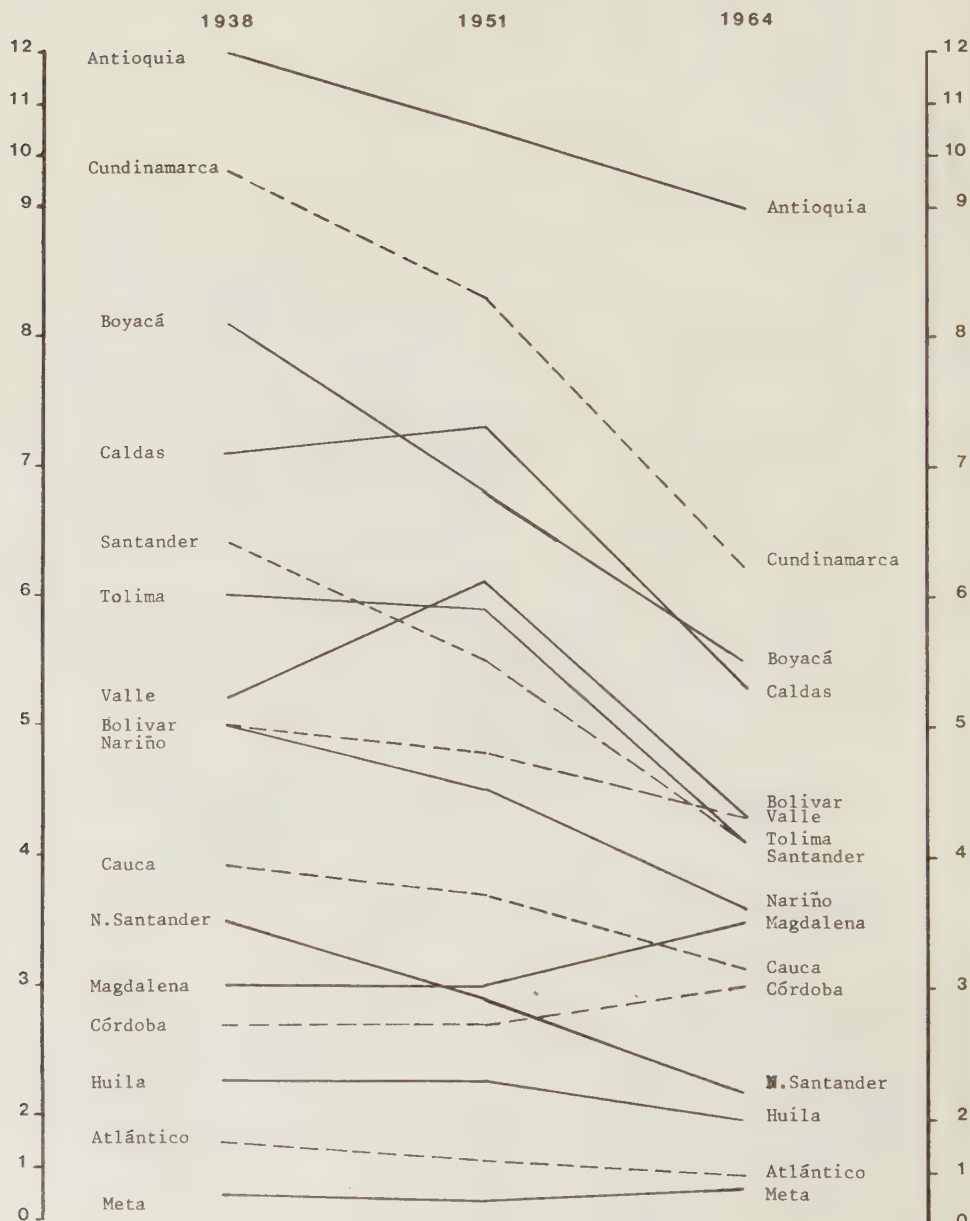
Very important changes have occurred if we look at the rural population as a percentage of the total population of the country, - see diagram 3 and map 7:

1. Almost all departamentos have lost in their percentages of rural population with respect to the total population of the country. Two departamentos in the Caribbean area - Magdalena and Córdoba - and one at the east of the Andes - Meta - won in percentages. These three departamentos have higher both rural and urban population growth rates than the average for the country. Additionally, all of them are located in the neighborhood of departamentos

Diagram 3.

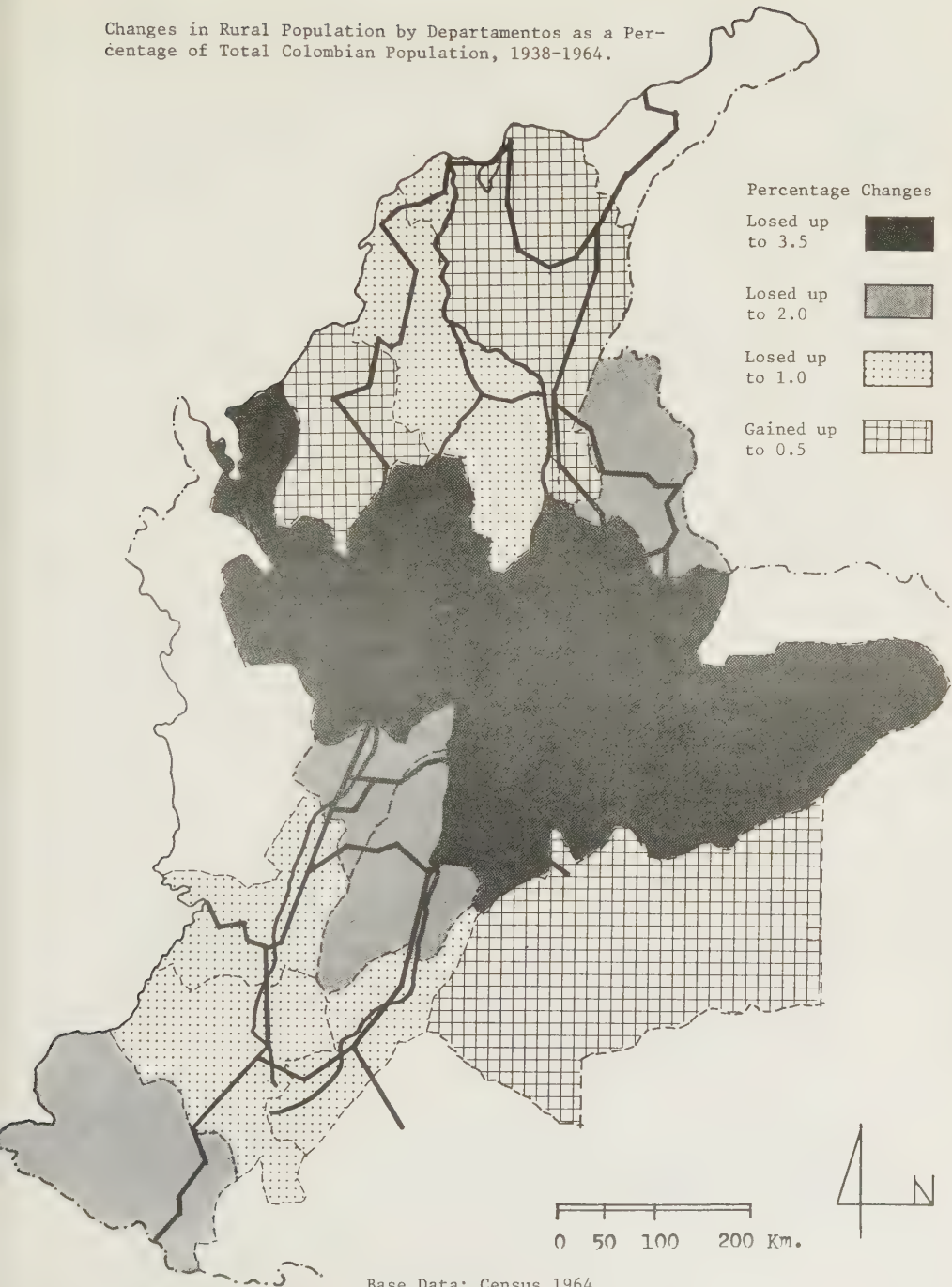
Rural Population as a Percentage of the Total Population of the Country.
1938, 1951, 1964.

Base Data: Census 1964.



Map 7.

Changes in Rural Population by Departamentos as a Percentage of Total Colombian Population, 1938-1964.



where regional urban areas are located. The main attributable reasons to explain the poor population and economic development of these areas until now and the poor communication possibilities they had, which made of them frontier regions is probably their climate. They are in very warm regions and tropical diseases were a barrier for the settlement of those regions. With the development of new medicines, then the communication system has started to develop, the high agricultural possibilities of the regions have been discovered, the population growth has increased very fast, and these departamentos have very probably attracted migrants to the rural areas during the last thirty years.

2. The departamentos which in the past had the largest sized rural populations are also those that have lost the largest groups from the rural areas. They are Cundinamarca, Antioquia, Boyacá and Santander. The first two of them have the two largest urban areas of the country - Bogotá and Medellín. The latter two of them have had large migration flows to the regional urban center of Cundinamarca.

3. Changes in percentages of rural population in the different departamentos have become spread in a neat diffusion pattern which has as its center the largest urban areas. Increasing distances from these centers implies that other departamentos lose less of the rural population. The existence of diffusion barriers also made impossible the process of urbanization and even reversed the process in the vicinity of the large urban areas in the warm frontier regions, without consideration to the fact that these regions were in the physical geographical hinterland of the large urban areas.

1.4 Urbanization on a Regional Basis as a Diffusion Process

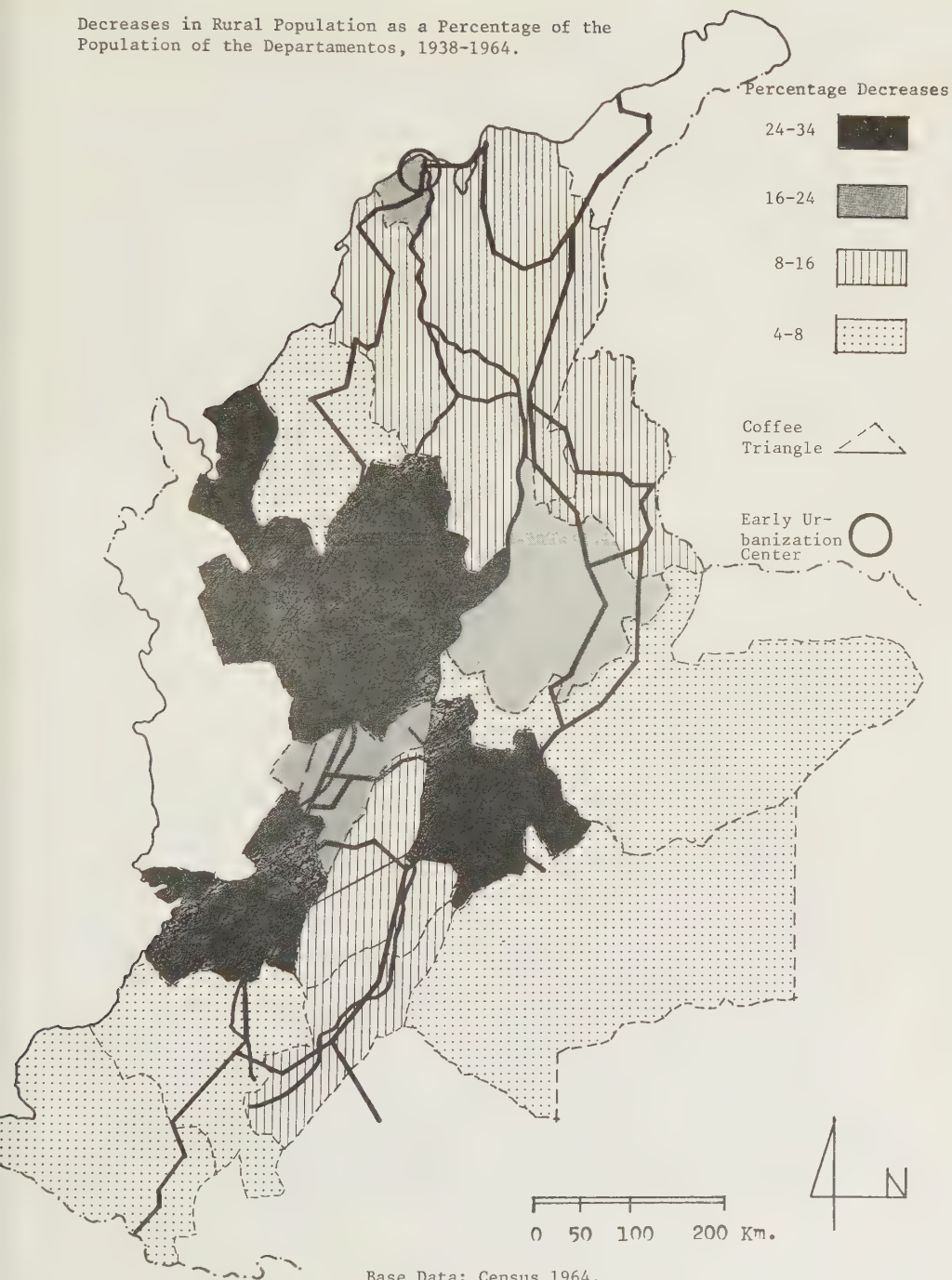
The urbanization process in Colombia can be analyzed as a clear diffusion process. Three important elements of this process can be found here:¹⁾

1. Early centers of innovations.
2. Barriers against the diffusion process.
3. Spurs to the diffusion process.

1) Hägerstrand, T, 1952.
Also Gould, Peter, 1969.

Map 8.

Decreases in Rural Population as a Percentage of the Population of the Departamentos, 1938-1964.



1.4.1 Early Centers of Innovation.

The earliest centers of the urbanization process appear to be the departamentos which in 1938 were the most urbanized in the country - Atlántico, Cundinamarca, Valle. Three of the four largest cities of the country - Barranquilla, Bogotá, Cali - were the capitals of them. The only conspicuous exception as an early centre of innovation was Antioquia, where Medellín the second city of the country was located.

None of the three departamentos were neighbours. The most urbanized one was Atlántico on the Caribbean area. The other two are in the Andes. Changes in urbanization in the remaining departamentos were prone to happen in direct relation to the distance from the early innovation centers although distance was not the important undiscussed factor. The action of the spurs and barriers on the spreading of the process would have a large effect upon the spreading results. See Map 8.

1.4.2. Spurs to the diffusion process.

Four factors were found in the Colombian case that can be considered as strong stimulants for the rapid spreading of the urbanization process:

1. Existence of a rich agricultural region. Excludes foreign plantations.
 2. Existence of sizable urban areas.
 3. Existence of the beginnings of an industrial base.
 4. Existence of special resources as natural harbors or river deltas.
- Excludes the existence of mineral resources and fuel resources.

Existence of rich agricultural regions is very often the basis of the coming into being of sizable urban areas, as the accumulation of agricultural products is based on an increased interchange with urban areas for the sales of those products. And conversely for the distribution of an increasing number of industrial inputs into the agricultural processes.

Large urban areas do not come into being only in the vicinity of rich agricultural regions. One of the early centers of the urbanization process - Atlántico - on the Caribbean coast, has a very large city, Barranquilla, which began not as an agricultural center but as a riverine and ocean harbor, one of the most important ones for the country. Afterwards it has developed into a sizable center for industrial production.

The existence of an industrial basis in the Colombian case must be connected with the existence of sizable urban areas. Although not all sizable urban areas have an industrial base as industrial production is highly concentrated to the regional urban centers. Other cities are providing central place activities and are very often specialized on one resource activity, for example as a harbor, or as centers of agricultural regions, or as commercial centers in regions adjacent to other countries.

1.4.3 Barriers to the Diffusion Process.

Among the most important barriers for the process of urbanization were found in the Colombian case:

The existence of old depressed agricultural regions with large problems of minifundia.

The frontier agricultural regions, sparsely populated.

The exploitation of large resources by foreign concerns.

3.1 In the Colombian case, three of the five departamentos which are less ready to become urbanized are old agricultural areas with large minifundia problems. They are Boyacá, Cauca and Nariño. The first two regions are direct neighbours of the early centers of innovation, Cundinamarca and Valle, respectively. None of these departamentos have sizable urban areas. Additionally they have had large emigration indexes to other departamentos where the early centres of innovation were located.

One could advance two propositions for explaining these high emigration indexes that leave the regions as "rural" as they were before:

3.1.1 These rural areas are most probably part of the hinterland of the large, far away, regional urban centers, that attract the rural migrants. In such a case the isolated regions would in reality be in the process of becoming urban as their population moves to the regional urban centers.

3.1.2 One could also say that the lack of sizable urban units in the backward agricultural subsistence areas is a direct invitation to the peasants to migrate to the large urban units in other departamentos. The existence of sizable urban units of intermediate type in the subsistence agricultural areas that could offer a large variety of central place activities and that could attract rural migrants from their hinterlands, might be a spur to the urbanization of the depressed agricultural regions, and an obstacle for the concentration of large numbers of migrants in the large regional urban areas.

The evidence from Colombia seems to indicate the validity of both propositions. In the case of departamentos with large minifundia problems, where sizable urban units existed, the process of urbanization has gone very fast in the same departamentos, even if they were neighbours of the early innovation areas, where the regional urban centers are located. This is the case of Santander and Caldas departamentos.

3.2 Existing frontier regions, sparsely settled, are also negative to the urbanization processes. This is probably due to the small number of towns in those regions, where people could settle. Most of the jobs are of agricultural type, very often extensive cattle raising, centralized to large latifundia farms. The owners of these farms very often live in the far away regional urban centers that provide the scarce inputs this type of farming needs. As for the workers of these farms, standards of living are very primitive and without much room for central place activities.

Interestingly, the natural features of the country, although tremendously difficult ones due to the presence of the Andes, have not deterred the urbanization processes. In fact, the three largest urban areas are in the Andes as well as about 20 of the 27 remaining urban areas. This in spite of the early arriving of the Spaniards through the low, flat lands of the coast. The real barriers to the urbanization process seem to have been the numerous tropical sicknesses in the warm climates.

This could explain for example the lack of appearance of urban areas in the great low plains at the east of the Andes, easily reached from Bogotá. Yet many cities appear near this city on the difficult terrains of the Andes.

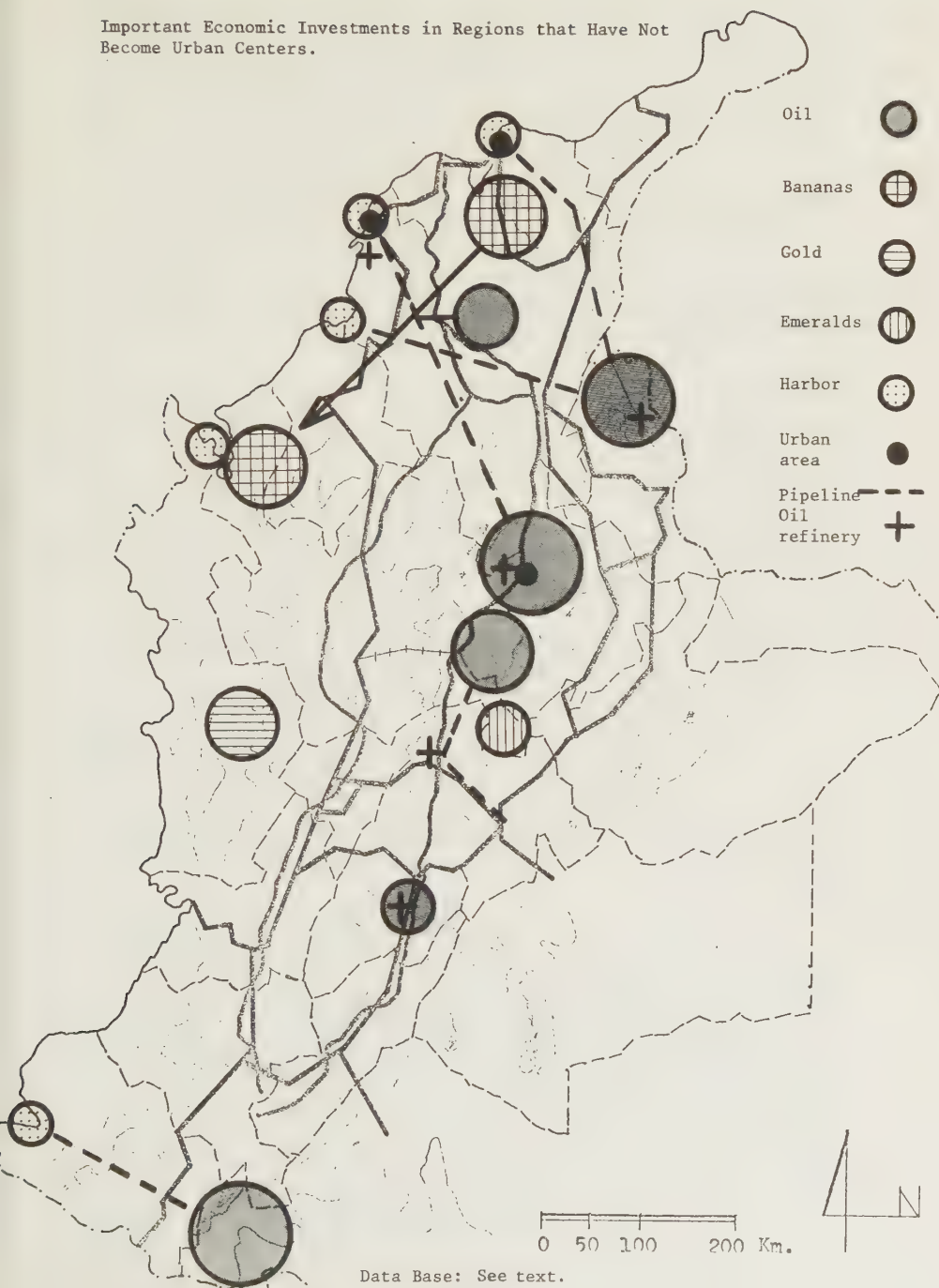
3.3 The exploitation of important mineral products as oil and gold has not brought as a consequence the growth of any urban area. Not even the terminal harbors for these products have had help of them. These products are handled by foreign companies and are for export. Neither has the cultivation of bananas by foreign concerns brought about the growth of urban areas. See Map 9.

The study of the characteristics of the regions where the economic assets under exploitation seemed very appropriate for the rapid growth of urban areas, without any results, is a very interesting subject, but unfortunately we can not concentrate our attention on it. However, we are going to show in a schematic way some of those areas. It must be also noticed that even in areas of high importance that are exploited by the government such as the emerald mines of Muzo, no urban agglomerations of local importance have arisen.

One of the possible reasons that could explain why no urban places grow

Map 9.

Important Economic Investments in Regions that Have Not Become Urban Centers.



in areas where large economic investments have been made, is that the concerns that make the investments are at the same time owners of the land and in that way can control the settlement on it, and permit access only to workers and their families, who stay only while there is work for them.

A good example of this can be given by the case of the bananas plantations. At the beginning of this century, the foreign concern had been given, free, about 10,000 hectares by the government of the country.¹⁾ About 18,000 people were employed on this large plantation,²⁾ in 1927. However, no urban center grew out of this. A sickness that affected banana trees, the "sigatoka fungus" in 1943, and probably the problem of strikes by the workers had as an effect the moving of the plantation to new sites in the north-west of the country.

1.4.4 Patterns of Diffusion.

4.1 From the early centers of innovation in the Andean region - Cundinamarca and Valle with their regional urban centers - Bogotá and Cali - the urbanization process has taken place at the highest tempo, since 1938. The existence of the rich agricultural region called 'the coffee triangle' has been a very important spur for this process. One of the departamentos of the triangle - Antioquia, with the regional urban center of Medellín - had one of the highest urbanization percentages. See Map 8.

4.2 Very high urbanization results are found in the departamento with the early innovation center in the Caribbean coast - Atlántico with Barranquilla city - which was and still is today the most urbanized of the departamentos.

4.3 Strong deflections of the urbanization process are found in the frontier regions Magdalena and Córdoba on the Caribbean coast and Meta at the east of the Andes.

An important conclusion for the future is related to the relevance of the existence of urban areas, or alternatively, of the creation through specific policies of growth centers in the middle of agricultural regions, for fostering the development of those regions, through an increase in the

1) Quimbaya, Anteo, 1967, p. 139.

2) Rippy, Fred J., 1970, p. 219.

number and quality of the services the peasants may have access to.

And more importantly for the spur to the urbanization processes of agricultural regions, by strenghtening the structure of urban areas in the whole country, to avoid the migration of unemployed peasants to the large regional urban centers.

1.5 Development of the Urban Areas

The study of the development of the emerging system of urban areas is the best way to understand the structure of the Colombian population in this century.

The urban areas are of importance with respect to the movement of the population, importance that extends beyond their hinterland, and beyond the administrative large regions they belong to. Unprecedented growth of the urban areas is taking place in combination with strong concentration of the population in the largest of them. This is found even in departamentos that as a whole have lost part of their population through migration.

The growing number of urban areas, however, is not a series of isolated phenomena but has to do with:¹⁾

1. Interrelation between each of the growing urban areas and importance and location of the regions where they are growing.
2. Specific functions that each city fulfils with respect to the remaining cities and with respect to the system as a whole.
3. The importance each city can obtain in the industrial field.
4. Hierarchical position of each city with respect to others.

In this section, it will be revised the development of these four variables in the Colombian urban system.

1.5.1 Definition of Urban Areas.

Colombian official statistics classify as urban all kinds of centers with a population over 1,500. We consider this classification exaggerated and overoptimistic in view of the low quality and quantity of central place activities that take place in these "urban" areas in the backward countries.

The truth is that small places are more often isolated in rural regions and belong more to the category of agricultural villages and rural towns.

1) EFTA, European Free Trade Association, 1973.

If we were to accept the official classifications, then 52 per cent of the 17 million Colombians were living in urban areas as early as 1964. And the large migration movements that have taken place from areas up to 30,000 inhabitants towards the large cities would be classified as urban-to-urban migration, when in reality this migration - and in this case the classification is very important - should be called rural-to-urban migration.

A well known fact which is of importance to the classification of urban areas in the backward countries is the very marked concentration of the production of goods and services in urban areas of large regional importance. This fact leaves automatically most of the small sized concentrations of population to the fate of being rural towns. This is not the case in the industrialized countries. Sweden may suffice as an example.

Sweden which is a country with about one third the population of Colombia has a very well developed system of urban areas which consists of 62 central places with populations over 30,000 where 61.5 per cent of the population resided in 1970-71.¹⁾

Colombia, on the other hand, had in 1964, 30 centers with a population over 30,000 where 35 per cent of the population resided.

With respect to the spatial location of the production of goods in both countries, Sweden concentrated in the three largest cities of the country, 32 per cent of the total number of industrial workers in 1965.²⁾ Colombia concentrated in the three largest cities 71 per cent and in the four largest 80 per cent of the industrial workers of the country. See table 4.

In the field of services we can give some examples of the extreme concentration in Colombia. We can look for example at the health service. 90 per cent of the doctors in the country were concentrated in cities larger than 100,000 in the year 1965.³⁾ According to our estimates 3,462 doctors, 63 per cent of the total of the country, resided in the three largest urban areas.⁴⁾

With relation to the access to somewhat specialized education possibilities and also to specialized forms of recreation such as theaters and concert-halls, there is also a high concentration to the large urban areas.

The Colombian National Planning Agency has advanced some studies about the classification of central places according to the kinds of services established in the places where the population is concentrated. They have established several types of centers which follow narrowly the hierarchy

1) EFTA, 1973, p. 34.

2) Ibid, p. 75.

3) ILO, 1970. Appendix 10.

4) Departamento nacional de Planeación, Bogotá 1969 (1).

Table 4

Concentration of Employment in the Manufacturing Sector in the Largest Urban Units in Sweden and Colombia.

(Percent of Total Employment in Manufacturing. In the case of Sweden includes also employment in construction and wholesale distribution.)

Sweden, 1965	%	% Urban Pop 1960	Colombia, 1966	%	% Urban Pop 1964
Stockholm	17	21.4	Bogotá	31	27
Gothenburg	9	9.7	Medellín	26	15.5
Malmö	6	6.6	Cali	14	10.0
			Barranquilla	9	8.5
Rest of Sweden	68	62.3	Rest of Colombia	20	39.5

Table Sources: EFTA, OP Cit, p 75, 36.

Colombia. Boletín Mensual de Estadística No. 224, 1970

Table 5

Concentration of Doctors in Colombia by Size of Urban Units.

City Size	Number Cities	Pop	Doctors	Doctors per 10,000 pop
Less than 20,000	853	2,275,827	575	2.3
20 - 100,000	30	1,680,000	944	5.6
Over 100,000	12	5,137,267	4,950	9.6

Note: In this table are not included 8.4 million peasants living in the open rural areas, without medical services.

Sources: ILO, 1970. Appendix 10.

Also Shultz, T. Paul, 1969, p. 85.

with respect to population size.

We think that a rather generous way of setting the limits for what should be called urban areas in Colombia, could include all the places with a population of the center larger than 30,000. In Sweden, commuting distances are used as a measure of where the urban population limits should go, including a radius around the urban centers of 30 km. In the Colombian case these measurements can only comprise the proper centers in the cities, as the car is no more than a rare vehicle for a few and other kinds of commuting are very restricted.¹⁾ We will thus apply the 30,000 threshold for urban areas in all the cases of this study where it is possible.

1.5.2 Urban Population

If we accept as urban areas all centers larger than 30,000, in 1964, 35 per cent of the total population were living in those areas. If the threshold were 10,000, 41 per cent of the population would be classified as urban. It seems thus that the threshold chosen is representative of the concentration of the population.

The list of urban areas and the spatial distribution of them are shown in Table 6 and on Map 10.

The urban areas have been divided in four well defined size levels that broadly indicate the degree of development in the areas.

The first size level has been given to the capital of the country. This urban area has developed as a core center with national importance. Three urban areas with regional importance follow the capital. All of these areas have a population over half a million. Eight centers of subregional importance and with populations between 100,000 and 250,000 follow in importance. Finally, a group of 18 cities which have only local importance follow. - By local importance we mean even cities that are capitals of the administrative regions where they are located -.

As we can observe, the urban areas are spread in linear fashion from north to south following the Andes cordilleras. Generally, their connectivity is very low, as for the most only linkages of primary type exist. Rivers were the main highways in the past, but it's not so any more. The Magdalena river, the most important one going to the Caribbean coast was replaced at

1) EFTA, OP. Cit. p. 29.

Table 6

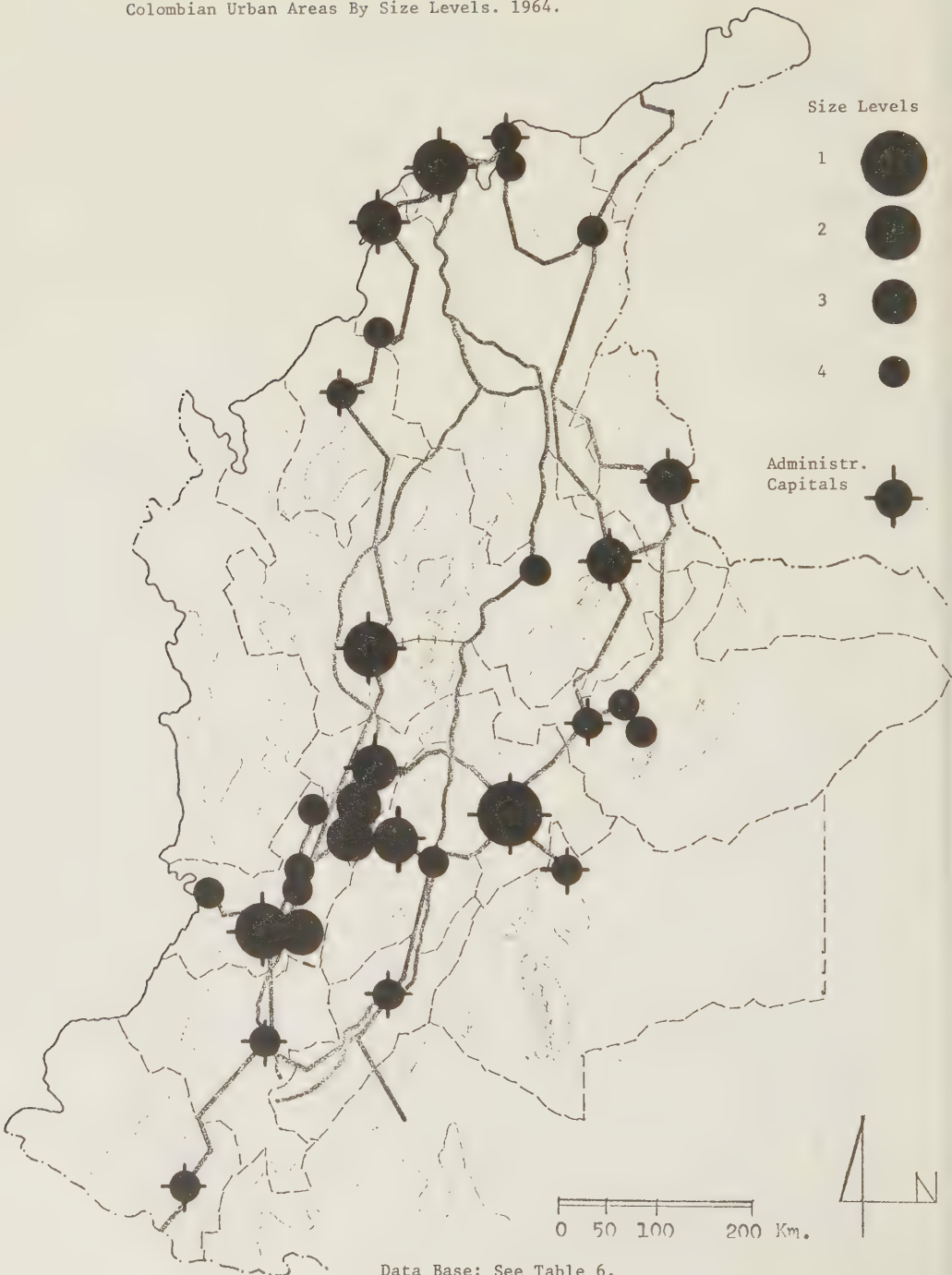
Colombian Urban Areas

	<u>P 51</u>	<u>P 64</u>	<u>T(%)</u>	
Bogotá	664,506	1,673,370	70	Size Level 1
Medellín	397,738	948,025	65	
Cali	245,568	633,485	71	
Barranguilla	296,357	530,651	44	Size Level 2
Bucaramanga	107,517	224,876	55	
Cartagena	111,291	217,910	50	
Manizales	92,030	195,542	56	
Pereira	89,675	179,133	52	
Armenia	72,805	155,364	57	Size Level 3
Cucuta	70,375	147,176	55	
Ibague	54,347	125,233	63	
Palmira	54,293	106,502	51	
Santa Marta	37,005	89,161	66	
Pasto	48,853	82,546	39	
Neiva	33,040	75,886	63	
Monteria	23,682	70,531	82	
Buenaventura	35,087	70,079	52	
Girardot	35,665	66,584	47	
Buga	32,016	65,535	54	
Barrancabermeja	25,046	59,625	65	Size Level 4
Popayan	31,866	58,500	46	
Tulua	28,715	56,539	51	
Cartago	31,051	55,682	44	
Cienaga	24,358	47,719	51	
Villavicencio	17,126	45,277	73	
Sincelejo	21,625	44,001	53	
Valledupar	9,011	43,553	119	
Tunja	23,008	40,451	42	
Sogamoso	14,122	34,960	68	
Duitama	7,723	31,865	107	
Total	2,735,501	6,175,761	Av. 65	

Data Source: Departamento Nacional de Planeación, 1969 (2), p. 21.

Map 10.

Colombian Urban Areas By Size Levels. 1964.



the beginning of the nineteen sixties by a railroad line that runs parallel to it down to the coast. At the same time the primary system of roads has increased.

Of the regional urban centers, only Barranquilla is located on the Caribbean coast. The other three are on the Andes. Barranquilla is the leading center for the other six cities that exist in its area. This city developed as a river-ocean harbor, has attracted industries and counts with nine per cent of the industrial workers of the country.

The regional urban centers in the Andes form the important coffee triangle, the most important economic region of the country. The development of the cluster of cities that appear in the middle of the coffee triangle is the spatial result of the economic activity taking place in the area.

Bogotá is the largest of the regional urban centers and the capital of the country. It has concentrated the most important decision making institutions, the most specialized services of cultural, educational, medical and recreational nature, finance and government. The city, moreover, houses, 31 per cent of the industrial workers of the country.

Medellín is the northern point of the coffee triangle. This large regional center was important already in the last century as the center of a rich region with gold and silver mines, which have been emptied or which have declined in importance. The city became a center of great importance in this century, by the development of large textile industries that process cotton coming from many regions of the country, mainly from Tolima which is located in the coffee triangle, and from various regions on the Caribbean coast, especially the Magdalena region. This city holds about 26 per cent of the industrial workers of the country.

Cali, the southernmost point in the coffee triangle, and also with high regional importance, has grown as a city located in one of the most fertile valleys of the country with highly specialized production of sugar and rice. The city has also 14 per cent of the industrial workers of the country. It is very well located with respect to the largest of the country's harbors, Buenaventura, on the coast of the Pacific ocean.

1.5.3 Urban Population Growth

There has been very impressive growth of the urban population well above the 3.2 per cent average for the country as a whole. We have the capital city growing at a rate of 7 per cent, the other three regional centers growing at an average of 6 per cent, the subregional centers growing at 5.5 per cent

Table 7

Percentage of Urban Population and Average Growth Rates, by Hierarchical Level of Urban Units 1951 and 1964. Thresholds for Urban Population, 30,000.

	<u>Size Level 1</u>	<u>Size Level 2</u>	<u>Size Level 3</u>	<u>Size Level 4</u>
Size Range (1964)	1,673,000	530-950,000	100-225,000	30-90,000
Number of Units	1	3	8	18
Population (1951)	664,506	939,663	652,333	478,999
Population (1964)	1,673,370	2,112,161	1,351,736	1,038,494
% Urban				
Pop 1951	24.5	34.5	24.0	17.5
% Urban				
Pop 1964	27.0	34.0	22.0	17.0
Av Growth				
Rates, 1951-1964	7.0	6.0	5.5	6.0

Data Sources: Departamento Nacional de Planeación, 1969 (2) p. 21.

and the local centers at 6 per cent. These very high growth rates are the result of the large migration from the rural areas. See Table 7.

It is very noticeable the increasing concentration of the urban population in the capital of the country. In 1964, 27 per cent of the urban population resided in this city against 24.5 per cent in 1951. The growth of it took place at the expense of the subregional urban areas with population ranges of 100, to 225,000.

The changes in the concentration of the urban population in relation to city sizes in the periods 1938-1951-1964 can be seen in Table 8.

The classifications we show in this table are the ones used by the Colombian Government with 1,500 inhabitants as lowest limit for urban areas. Our contention is that towns below 30,000 should be considered as rural towns. All migration from these towns to urban areas over 30,000 should be considered as rural-to-urban migration.

The most interesting findings in Table 8 are:

1. In the period 1938-1964 a wide change in the location of the urban population, with an extremely high increase of 30 per cent for the population in urban areas larger than 200,000 took place. There were also gains in the population percentages in cities between 50-100,000. These gains have been costed by the population in towns up to 10,000 that in our case we call rural towns, and these changes in location we call rural to urban migration.

2. 42 per cent of the urban population, according to this table, were residing in urban areas larger than 200,000 in 1964. This considers as urban all towns up to 30,000. However, according to our calculations, with a threshold for urban areas of 30,000, 68 per cent of the urban population were residing in areas over 200,000. And more than 83 per cent of the urban population were in urban areas larger than 100,000 in 1964.

However, as we have seen before, only 35 per cent of the Colombian population should be considered as urban. It becomes evident the overconcentration of the urban population in very large cities with respect to the needs and abilities of the country.

3. Great migration from the rural to urban areas has taken place for more than 30 years now. The largest per cent gains in the urban areas over 200,000 were made in the period 1938-1951.

Diagram 4 is a graphic representation of Table 8. The graph shows the cumulative additions to the columns in the second part of Table 8. The percentages of population are in the X axis, and the percentage of towns in the Y axis. The diagram shows well the rural to urban migration of population

Table 8

Percent Concentration of the Urban Population by City Sizes

City Sizes	1938		1951		1964	
	% Urban Areas	% Pop	% Urban Areas	% Pop	% Urban Areas	% Pop
Less than 2,000	67.4	18.7	60.2	9.4	48.3	4.6
2,000 - 4,999	22.7	20.7	25.3	14.8	26.8	8.4
5,000 - 9,999	6.0	12.4	7.7	9.6	12.6	8.3
10,000 - 19,999	1.9	7.4	3.5	8.5	6.8	9.2
20,000 - 49,999	1.2	10.4	1.9	10.7	2.7	8.5
50,000 - 99,999	0.4	7.8	0.7	9.0	1.5	10.0
100,000- 199,999	0.3	10.7	0.3	4.8	0.7	9.3
Over 200,000	0.1	11.9	0.5	33.2	0.7	42.0

Changes in the Concentration of the Urban Population in the Different Periods.

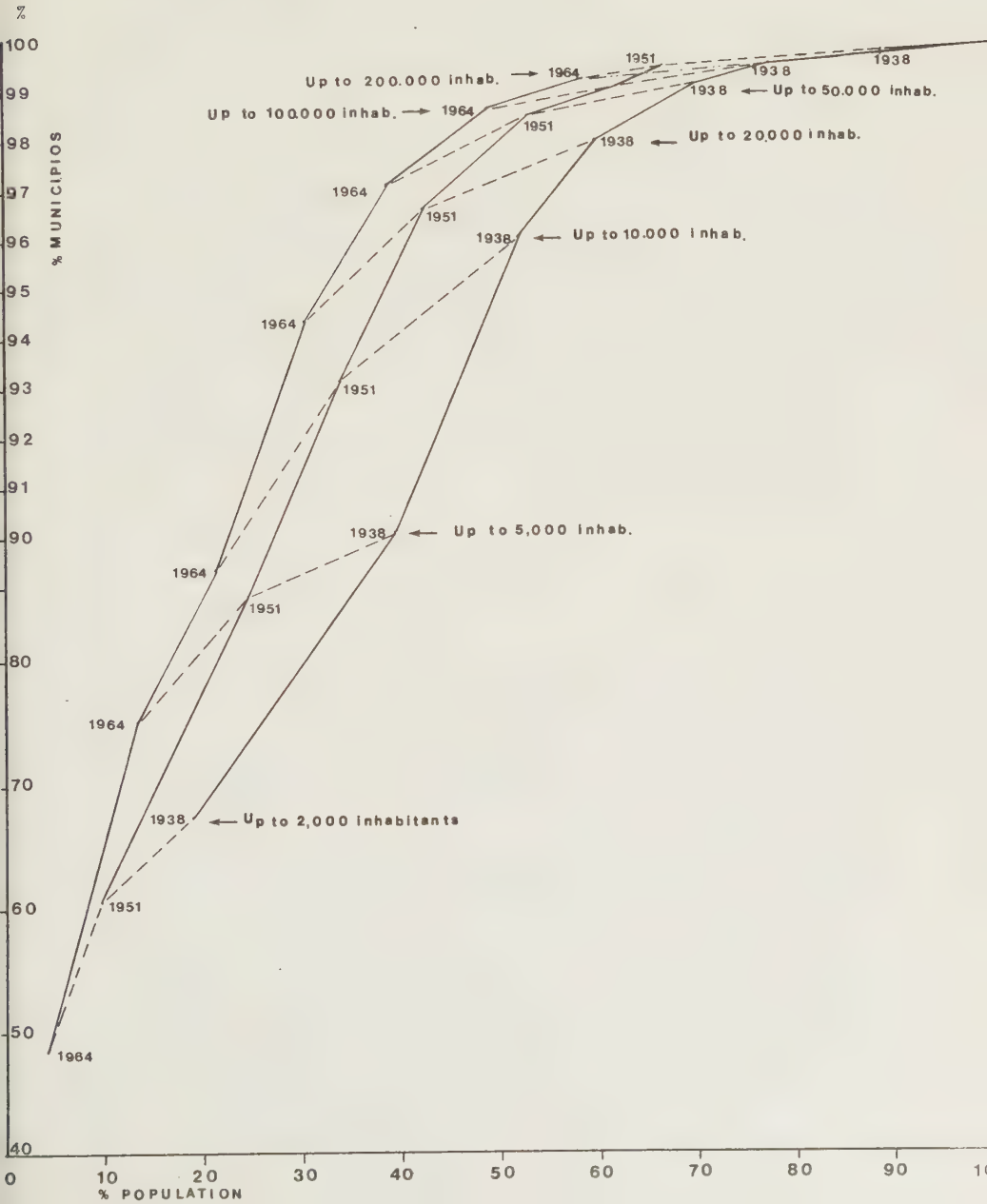
	1938-1951		1951-1964		1938-1964	
	% Urban Areas	% Pop	% Urban Areas	% Pop	% Urban Areas	% Pop
Less than 2,000	- 7.2	- 9.3	- 11.9	- 4.4	- 19.1	- 14.1
2,000 - 4,999	+ 2.6	- 5.9	+ 1.5	- 6.4	+ 4.1	- 12.3
5,000 - 9,999	+ 1.7	- 2.8	+ 4.9	- 1.3	+ 6.6	- 4.1
10,000 - 19,999	+ 1.6	+ 1.1	+ 3.3	- 0.7	+ 4.9	+ 1.8
20,000 - 49,999	+ 0.7	+ 0.3	+ 0.8	- 2.2	+ 1.5	- 1.9
50,000 - 99,999	+ 0.3	+ 1.2	+ 0.8	+ 1.0	+ 1.1	+ 2.2
100,000- 199,999	0.0	- 5.9	+ 0.4	+ 4.5	+ 0.4	- 1.4
Over 200,000	+ 0.4	+21.3	+ 0.2	+ 8.8	+ 0.6	+ 30.1

Data Source: Departamento Nacional de Planeación 1969 (2), p. 17.

Diagram 4.

Aggregated Percentage Distribution of Colombian Population by City Sizes.
1938, 1951 and 1964.

Base Data: Table 8.



living in towns. The lines for town sizes up to 19,999 and even to 49,999 grow to the left and downwards. For example, for the first class of towns it means that the towns up to 2,000 inhabitants were in 1938 67 per cent of all 'urban' areas, and had 18.5 per cent of the 'urban' population. In 1964 they had declined in importance and were 48 percent of the number of urban areas and had 4.5 per cent of the urban population. And so on for most of the city sizes.

With the exception of towns up to 2,000 the remaining city sizes gained in their percentages of number of towns. But those which won in population percentages were only those between 10-20,000 and 50-100,000 both with slight per cent changes. And also the large gains of urban centers over 200,000. The largest population growth rates, to be confirmed through more research, seem to have taken place at the level of rural towns between 10-30,000 as follows from our estimates included in chapter 1. We must notice however, that those estimates included only the period 1951-1964.

An attempt to show the concentration of the urban population to the large urban areas through the use of a Lorentz Diagram is shown in diagram 5. In 1938 two per cent of the urban areas, the largest ones, contained about 40 per cent of the urban population. In 1964 they held about 50 per cent of the same population.

1.5.4 Rank Size Distribution of Urban Areas

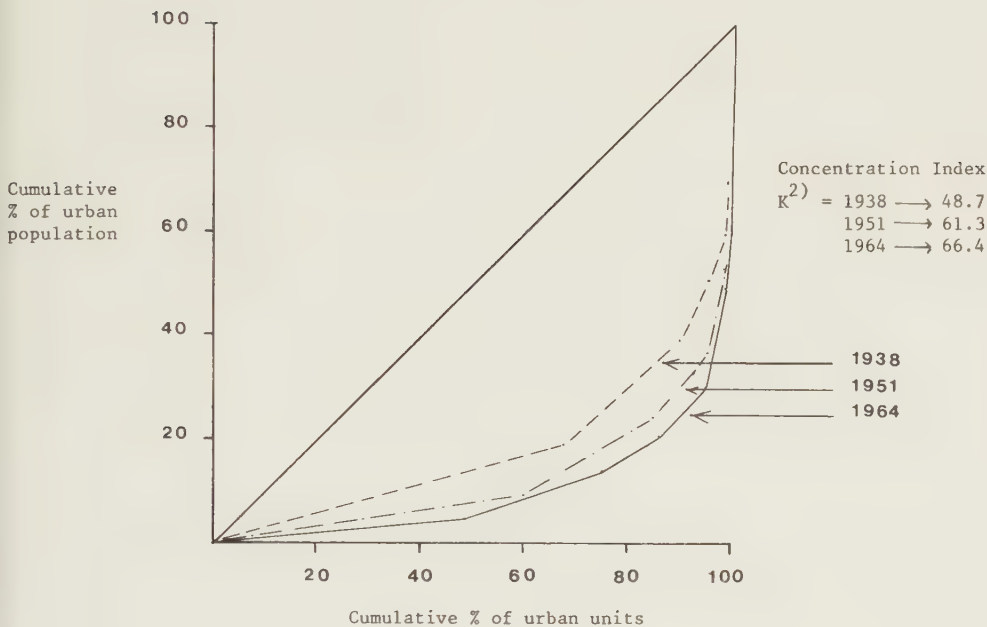
The uneven concentration of the urban population throughout the years, with a tendency to the increasing differentiation between the four largest urban areas and the rest of them can be seen in diagrams 6 and 7.

The first of the diagrams shows the rank size distribution for the total number - 30 - of urban units with a threshold of 30,000 existing in 1964.

The following diagrams show all those cities that were larger than 100,000 in 1964 and their development process since 1938. There is a great difference between the statistical base for the first diagram and that for the other three. The first diagram includes the population residing in the core in each city, while the three following diagrams include the population of each city including its core population, plus the rural population residing in its hinterland. We think that the Colombian case is better represented by the first of the diagrams, but unfortunately we do not have access to a whole time sequence in this style. We should think thus of the two different diagrams as expressions of different problems. Moreover, by using

Diagram 5.

Colombia. Concentration of the Urban Population. 1938, 1951 and 1964.¹⁾



1) The Urban areas in this Diagram, include all villages, towns and urban areas over 1,500 according to the Colombian official classification.

$$2) K = \frac{1}{2} \sum_{i=1}^n |x_i - y_i|$$

See Hannerberg, David. Beskrivande Korologi. Studentlitteratur 1969, p. 67.

Base Data: Table 8.

Diagram 6.

Rank Size Distribution of Urban Areas, 1964. Threshold, 30,000.

The logarithm of the rank size of each urban area in the horizontal axis is plotted against the logarithm of the population.

Data Source: Departamento Nacional de Planeación, 1969.(1)

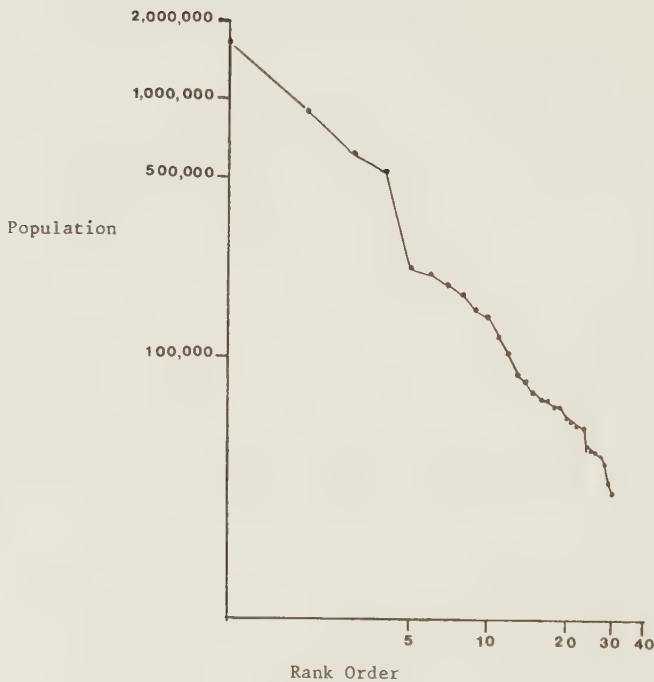
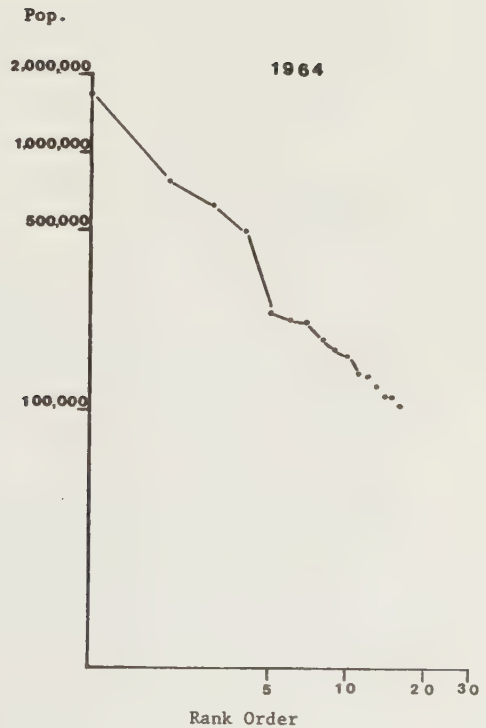
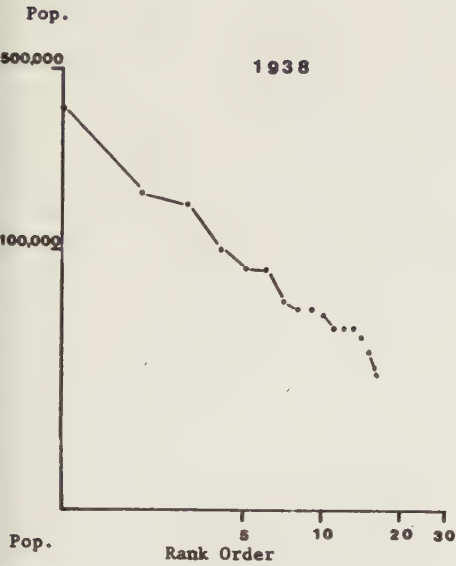


Diagram 7.

Rank Size Distribution of the 16 Largest Urban Areas, including their Hinterland, 1964, 1938, 1951.

Data Source: Schultz, Paul T., 1969, p. 6.



diverse statistical base some cities have changed rank and size, and this must not be forgotten.

The first rank size distribution, showing the population of the 30 urban units in the country, is a good demonstration of the rupture in rank size importance between the four largest urban units and the rest of them. With respect to the meaning of this rupture, the EFTA study remarks that:

"A situation can be postulated in which the population of a unit is determined by its rank order: that is, the second largest unit is half the size of the largest, the third ranking, one-third the population of the largest and so on. Such a distribution would form a straight line on a double logarithmic graph.

It has been contended that such a rank size distribution of urban sizes is more than a statistical regularity, being indicative of a fully integrated system of units, produced in response to long run development processes (Isard, 1956). The implication is sometimes drawn that because, in statistical terms, a rank size distribution is indicative of a long run stability or statistical equilibrium, in economic terms it is the most efficient or optimum form for facilitating these development processes. Although many distributions do take the rank size form, there is no theoretical reason why this should be so and little empirical connection between levels of economic development and distributions of urban unit sizes (Berry, 1961)."¹

The authors end by recommending the use of the rank size distributions as descriptive devices.

In the Colombian case we feel that the breaks in the rank size distribution are indicative also of the real divergence which exists in the functional structure between the four largest cities and the rest of them.

There are no other urban areas in the lower levels that due to their spatial location should be given the same rank size and functional importance that the four largest cities have over the whole of the country. We have remarked before, how in the industrial field these four urban areas have a concentration of 80 per cent of the workers of the country.

We can now look at the rank size distribution for the 16 largest cities including their population in the hinterland for the years 1938, 1951 and 1964. These diagrams are very interesting for us, as they show in slow motion the process of differentiation of the Colombian urban areas.

In 1938 there was not a rank size distribution with characteristics of primacy or the dominance of the scene by one large urban area.

There were, however, "valleys" of undersized areas which were present with certain rhythm while the first, third, sixth and ninth urban areas were clear tops.

In 1951 there is a sudden, deep rupture in the development of the cities between the fourth and fifth linkages, which could not have been anti-

1) EFTA 1973, p. 41.

cipated in 1938. This rupture is mainly due to the extremely high gains made by the four largest urban areas. The valleys which were present in the first diagram had disappeared among the lower rank order areas, while they were present among the highest ones.

In 1964 the valleys have disappeared and there is a continuation of the very wide rupture between the fourth and fifth linkages, but it seems to be wider than necessary. All the urban areas had increased their population very fast but it seems that the lower rank urban areas had diminished their disadvantage with respect to the four. The permanence of the disruption could not at all be assured to exist at the end of the next period. However, there are not any statistics about the urban population after 1964.

1.5.5 Concentration of the Urban Population in the Four Largest Units.

The four largest urban units have, as shown before, the most decisive concentration of functional and economic tasks in the country. They constitute the leading attraction centers around which the rest of the urban areas are grouped. Their position in the rank size order is the most important factor which under the present conditions permits them to continue growing at the fastest rates and defend and consolidate their positions.

The statistics concerning the process of concentration of the urban population in the four regional centers are shown on Table 9. The data are presented according to the official statistics with thresholds of 1,500 and according to our own estimates with thresholds of 30,000.

According to our calculations the predominance of the four areas - Bogotá, Medellín, Cali, Barranquilla - has been rather constant in 1951 and 1964, gathering between 59 and 60 per cent of the urban population with an increase in the internal concentration in the capital city.

If we look at the official statistics, we will find a more marked process of concentration with the four cities having in 1938, 29 per cent of the urban population and 41 per cent in 1964, also an increase of 22 per cent. These statistics reflect the migration flows from rural towns to urban areas.

1.5.6 Estimates of the Population of the Four Largest Urban Centers in 1985.

The projections of the population in the four regional urban centers, if growth rates continue to be the same as for the period 1951-1964, are shown in diagram 8.

Table 9

Concentration of the Urban Population in the Four Largest Units.

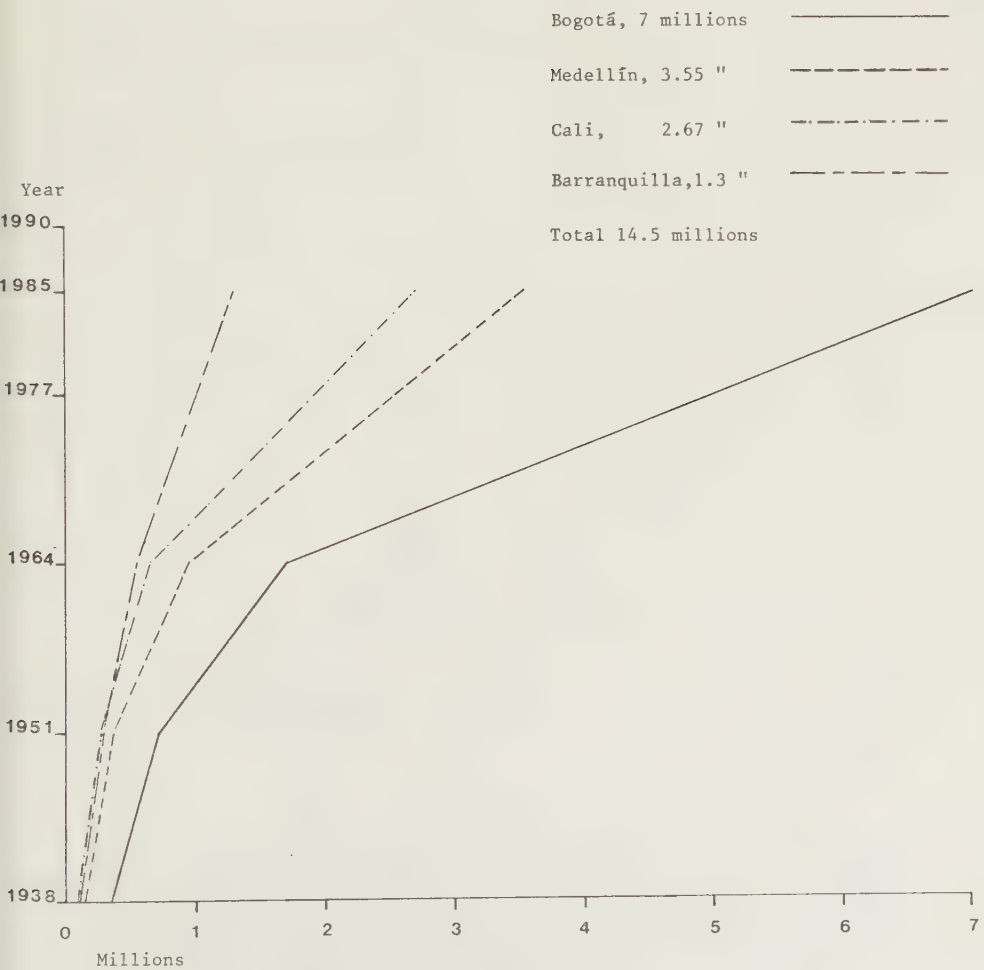
	Popu- lation	% Urban Pop	Cumula- tive	Popu- lation	% Urban Pop	Cumula- tive
	1938			1938		
Bogotá	356,000	13.0	13.0	336,000	25.0	25.0
Medellín	168,000	6.0	19.0	168,000	13.0	38.0
Cali	102,000	4.0	23.0	102,000	8.0	46.0
Barranquilla	152,000	6.0	29.0	152,000	12.0	58.0
	1951			1951		
Bogotá	715,000	16.0	16.0	715,000	26.0	26.0
Medellín	358,000	8.0	24.0	358,000	13.0	39.0
Cali	284,000	6.0	30.0	284,000	10.0	49.0
Barranquilla	280,000	6.0	36.0	280,000	10.0	59.0
	1964			1964		
Bogotá	1,697,000	19.0	19.0	1,697,000	28.0	28.0
Medellín	773,000	9.0	28.0	773,000	13.0	41.0
Cali	638,000	7.0	35.0	638,000	10.0	52.0
Barranquilla	498,000	6.0	41.0	498,000	8.0	60.0

Note: The results on the left side have been calculated with a threshold for urban areas of 1,500 inhabitants, and those on the right, with a threshold for urban areas of 30,000.

Base Data: Shultz, Op cit, p 6 and author's estimates

Diagram 8.

Estimates of the Population of the Four Largest Urban Areas in 1985.



If this happens, the four urban areas will count about 14.5 million people in 1985. Bogotá alone will have 7 million.

Today's Calcutta is perhaps - with its chronic overpopulation and over-concentration of unemployed slum dwellers - a clear example of what is possible to happen to Bogotá, ten years from now, if the process of uncontrolled growth and concentration of unemployed migrants continues unhindered.

1.5.7 Spatial Location of Industrial Production.

Spatial location of the industrial location follows very closely in Colombia the rank size distribution of the urban population. Map 11 shows the spatial distribution of industrial jobs.

Only two of the lowest ranked urban areas do not appear with any industrial jobs. They are replaced by three new entrants, but the picture does not change. The overconcentration of industrial jobs in the four urban regional centers is very marked. It coincides exactly with the overconcentration of rural to urban migrants and of interregional migrants that has as destination points these regional centers.

The coffee triangle which is limited by the three regional Andean urban centers, is of the highest importance for the industrial development of the country. Almost 81 per cent of all the industrial jobs of the country are concentrated here.

The northern side of the Andean region outside the coffee triangle has about 6 per cent of all the industrial jobs.

The industrial jobs located in the Caribbean coast region are about 12 per cent of the total.

The four regional urban centers - Bogotá, Medellín, Cali, Barranquilla - have a very high concentration of industry with respect to the remaining 26 cities. 80 per cent of the industrial workers are in the four cities. With respect to the interesting development of the four cities, which contrasts, nevertheless, with the primacy of one city present in many Latin American countries, a U.N. publication says:

"... it is interesting to note that the most dynamic centre of manufacturing activities has shifted over the years. Up to 1930 there was no pre-dominating centre, but by 1930 and 1940 Barranquilla was leading the industrial development process owing to its function as an export and import shipping port. During the 1940's, Medellín assumed first place (N.B. The northern point of the coffee triangle) on the basis of the capital formation that was made possible by the coffee boom, and the import substitution policy resulting from the Second World War. Throughout the 1950's, Cali was

Map 11.

Spatial Location of Industrial Production, 1966.

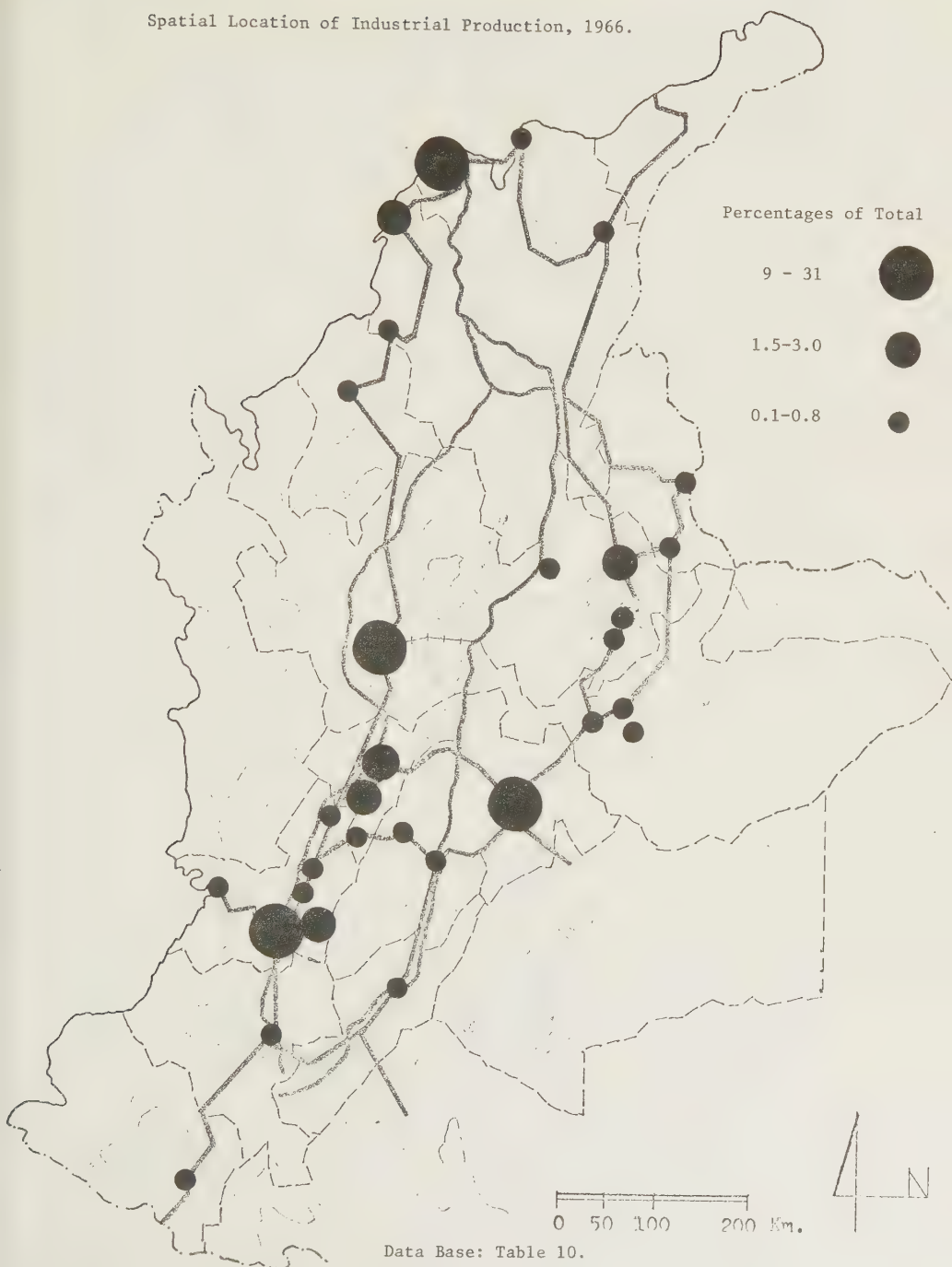


Table 10

Industrial Workers by Cities and Departamentos. Colombia 1966.

<u>Departamentos</u>	<u>Cities</u>	<u>Number</u>	<u>%</u>
Cundinamarca	Bogotá, DE-Soacha	82,546	31.0
	Girardot	1,144	.4
	T	83,690	31.4
Antioquia	Medellín-Itaguf-		
	Bello-Envigado	T 68,863	26.0
Valle	Cali-Yumbo	38,736	14.0
	Palmira	4,468	1.8
	Buga	1,418	0.6
	Buenaventura	762	0.3
	Cartago	803	0.3
	Tulua	860	0.3
	T	47,047	17.3
Atlántico	Barranquilla	T 24,533	9.0
Caldas	Manizales	5,112	2.0
	Pereira-Sta. Rosa	6,324	2.5
	Armenia	1,505	0.7
	T	12,900	5.2
Santander	Bucaramanga	7,104	2.8
	Barrancabermeja	1,792	0.8
	Socorro	341	0.1
	San Gil	815	0.4
	T	10,052	4.1
Bolívar	Cartagena	4,621	2.0
	Sincelejo	341	0.1
	T	4,753	2.1
Boyaca	Tunja	799	0.3
	Sogamoso-Nobsa	2,211	0.8
	Duitama	515	0.2
	T	3,525	1.3

Table 10 cont

Industrial Workers by Cities and Departamentos, Colombia 1966.

<u>Departamentos</u>	<u>Cities</u>		<u>Number</u>	<u>%</u>
Norte Santander	Cúcuta		1,837	0.8
	Pamplona		290	0.1
		T	2,127	0.9
Magdalena	Sta.Marta	T	1,308	0.5
Tolima	Ibague	T	1,509	0.7
Nariño	Pasto	T	1,068	0.4
Huila	Neiva	T	824	0.3
Cauca	Popayán	T	720	0.3
Meta	Villavicencio	T	445	0.2
Córdoba	Monteria	T	319	0.1
		T	263,724	98.8

Source: Manrique, Rodrigo, 1970, p. XI.

the new manufacturing centre (N.B. the southeast point of the triangle) stimulated by the inflow of foreign capital; the main activities established there were pharmaceutical and chemical laboratories and related and supplementary industries (chemicals, containers, glassware, etc.) and other important industries such as foodstuffs and paper and paperboard. During the next decade, for various reasons which included political centralization - the most dynamic city was Bogotá. It is pointed out that this shifting of the major industrial centre did not weaken the previous centres in absolute terms; they merely developed more slowly.¹⁾

The Colombian regional industrial centers are not developing as centers of autonomous regions, but at an increasing rate of interdependence. The coastal regions are dependent for their growth on the increasing imports and exports to and from the rest of the country. Additionally they are dependent from the rest of the country for increasing their importance for tourism.

The Andean region has very near relations to the coastal one. The plains of warm climates in the coast provide, for example, cotton for the growth of the textile industry in the coffee triangle.

Industrial products from the Atlantic coast, for example refined oil products, (the crude oil is transported first to the coast by pipelines from the interior, to be refined) are transported by boat through the Panama Canal to the Pacific Ocean and there, from the large harbor of Buenaventura, the refined products are sent to Cali, the southwest regional center of the coffee triangle, to be used there. This is a clear example of the increasing interdependence among the regional centers.

On a regional basis it is found a large overconcentration of industry in the Andean area. This area concentrates 88 per cent of the industrial workers of the country although it only has 78 per cent of the industrial population. The Caribbean region has thus 22 per cent of the urban population and 12 per cent of the industrial workers.

1.6 A Division of Regions Based on the Structure of Urban Areas

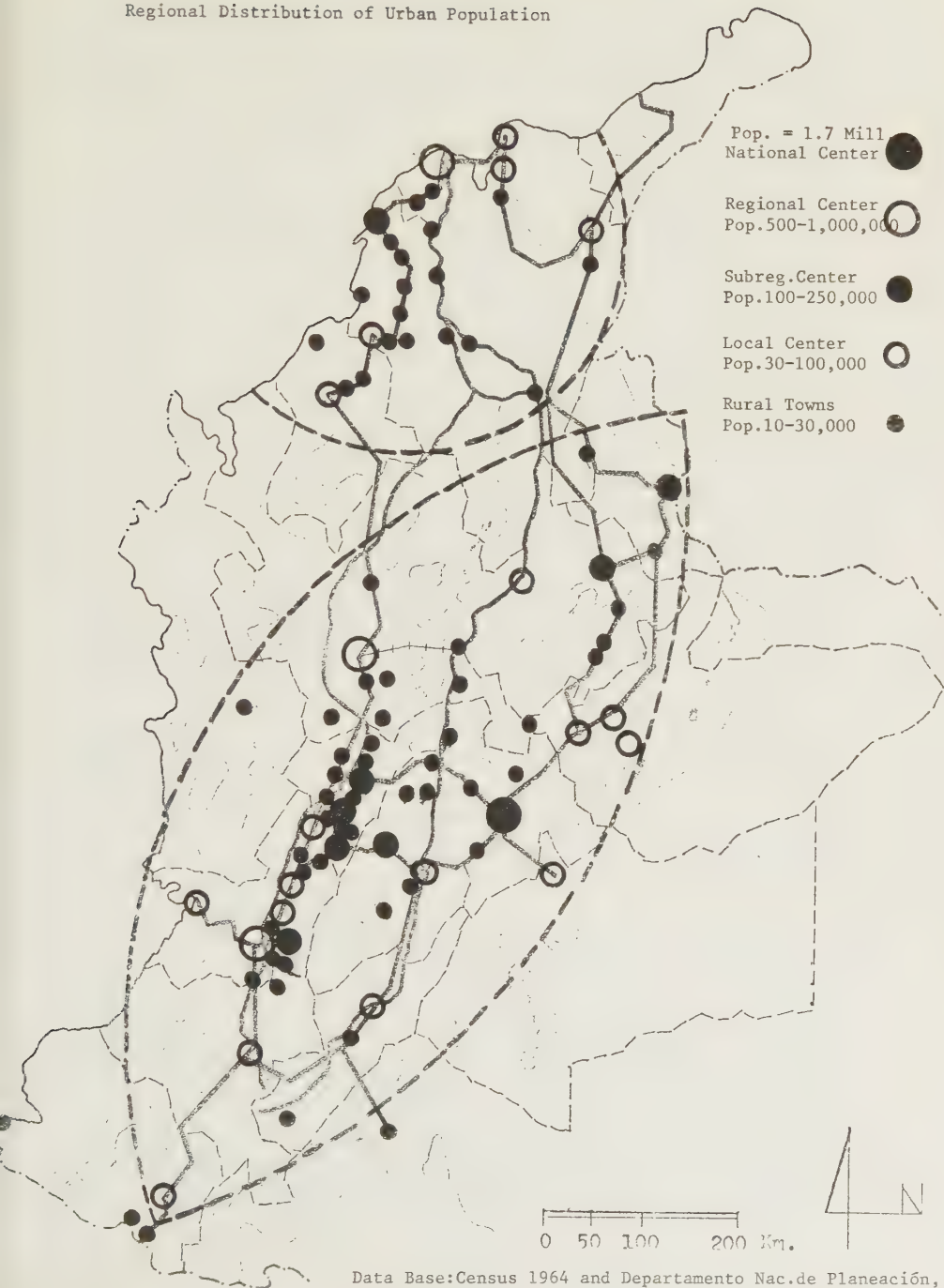
An important study by the National Planning Agency has divided the country in a series of 'planning regions' according to the location of regional and subregional urban areas.²⁾ The country has been divided into 8 regions: 2 on the Atlantic coast, 5 regions in the Andean area, and one intermediate region in the area between the two largest ones.

1) U.N. Economic Bulletin for Latin America, 1971, (1).

2) ILO, 1970. Appendix 5 p. 2.

Map 12.

Regional Distribution of Urban Population



Due to the close interdependence of functions among the different regional centers, due in turn to the geographic position of them with respect to each other, and owing to the impossibility for the different regional centers of existing without the other centers in the economic sense, and last but not least, due to the climatic similarities among them, then it is possible to analyze the country as divided only in two large regions. See Map 12.

The first region is the Caribbean one. It is compounded by a regional center, a subregional one, five local centers and nineteen rural towns. This region has a population of 1,380,000 including from rural towns to the regional center.

The second region is the Andean one. This region has its center at the coffee triangle. It is compounded by a national-regional center, two other regional centers, seven subregional centers, thirteen local centers and forty-seven rural towns. The population living in rural towns and urban areas amounts to 5.8 millions. The three Andean regional centers share interdependence with respect of their possibilities of development. They share the hinterland of the coffee triangle and due to their specialization have strong relations with the rest of urban regions of the country.

From the physical point of view the two regions are opposite complementary poles: the Caribbean region has low flat lands of very warm climate, with agricultural products of the tropics. Meanwhile the Andean region has rugged lands of temperate and cold climates and agriculture of these types of climates.

The two large regions we have defined for the country are separated spatially by a very large, very scarcely inhabited region, with large stretches of swampy land. The physical separation as one can observe in the map is very neat. Only the primary communication nets are linking unhindered, one region to the other.

1.6.1 Degrees of Urbanization at a Regional Level

The urban population - with thresholds over 30,000 - and the degree of urbanization of every departamento are shown in Table 11. For a better understanding of the problem of urbanization, we have estimated the degrees of it on a regional basis, for the Caribbean and for the Andes.

There is great variation among the departamentos. Most of them had in 1964 no more than one fourth of the population in the urban areas. Those were departamentos, where no regional areas were located. There is only one

exception of a departamento, Caldas, which only has subregional urban areas but at the same time a higher degree of urbanization. It means that even in those departamentos with urban areas up to 250,000, the degree of urbanization was very low.

Important features with respect to changes in the degree of urbanization are:

1. The three regional urban cores in the Andean region, and the one in the Caribbean region have pushed up the degree of urbanization of the departamentos where they are located. Less urbanized departamentos are spread very neatly around the most urbanized ones.

2. The Caribbean region as a whole appears with a higher degree of urbanization than the Andean, both in 1951 and 1964. The Caribbean has also increased faster its degree of urbanization in the period, also 16 per cent against 11 per cent for the Andean region.

3. Relations between the departamentos with respect to their degree of urbanization have remained pretty constant since 1951. Those with higher degrees of urbanization have kept their positions in 1964. Yet, some departamentos have increased their degree of urbanization faster than others. The percentages that every departamento has won are shown on Map 14. The average gain in the period was 11 per cent. Those with larger increases, were those with regional urban centers in the Andean region as well as one - Caldas - with three subregional urban centers, inside the coffee triangle. Interestingly, they were also the most urbanized departamentos in both 1951 and 1964. Urbanization as a diffusion process was taking place more rapidly, precisely in those areas which had the initial advantage of being more urbanized.

4. There is the notable exception of one of the departamentos - Atlantico - having the large regional urban center in the Caribbean, with a gain in urbanization lower than the average under this period. Some reasons which could help to explain this are:

- 4.1 Atlantico is the most urbanized departamento in the country, 74 per cent in 1964. The low growth during the period corresponds to the final taming of the S-shaped curve which can be used to describe the process of urbanization.

- 4.2 Those who are left in the countryside are probably the old, the sick and the illiterates who find it more difficult to make a living in the urban areas.

- 4.3 It could also be that those left back are that kind of population that - at the present stage of low technological level in the countryside -

Table 11

Degrees of Urbanization at a Regional Level, 1951 and 1964. Included as Urban Areas are all Cities larger than 30,000 in 1964.

Departamentos	1951 Urban Po- pulation	1964 Urban Po- pulation	1951 % Urban Populat	1964 % Urban Populat	1951-1964 % Change
1 ^{x)} Atlántico	296,357	530,651	69	74	5
1 Bolívar	132,916	261,911	20	25	5
1 Córdoba	23,682	70,351	7.5	12	4.5
1 Magdalena	70,374	180,443	17.5	23	5.5
2 ^{x)} Antioquia	397,738	910,938	25	37	12
2 Boyacá	44,853	107,276	5.5	10	4.5
2 Caldas	254,510	530,039	24	37	13
2 Cauca	31,866	58,500	7	10	3
2 Cundinamarca	700,171	1,739,954	43	62	19
2 Huila	33,040	75,886	11.5	18	6.5
2 Meta	17,126	45,277	25	27	2
2 Nariño	48,853	82,546	9	12	13
2 Norte Santander	70,375	147,176	18	28	10
2 Santander	132,563	284,501	17.5	28	10.5
2 Tolima	54,347	125,233	7.5	15	7.5
2 Valle	<u>426,730</u>	<u>987,822</u>	<u>39</u>	<u>57</u>	<u>18</u>
Total Country ^{x)}	2,735,501	6,175,761	24	35	11

Year	Regions	Total Population	Urban Population	% Urban Popula- tion	% Change
1951	Caribbean	1,827,618	523,329	29	16
1964	Region	3,098,877	1,382,600	45	
1951	Andean	9,370,376	2,212,172	24	11
1964	Region	13,815,640	4,793,161	35	

x) Urban Population, weighted against total pop of country, including frontier regions.

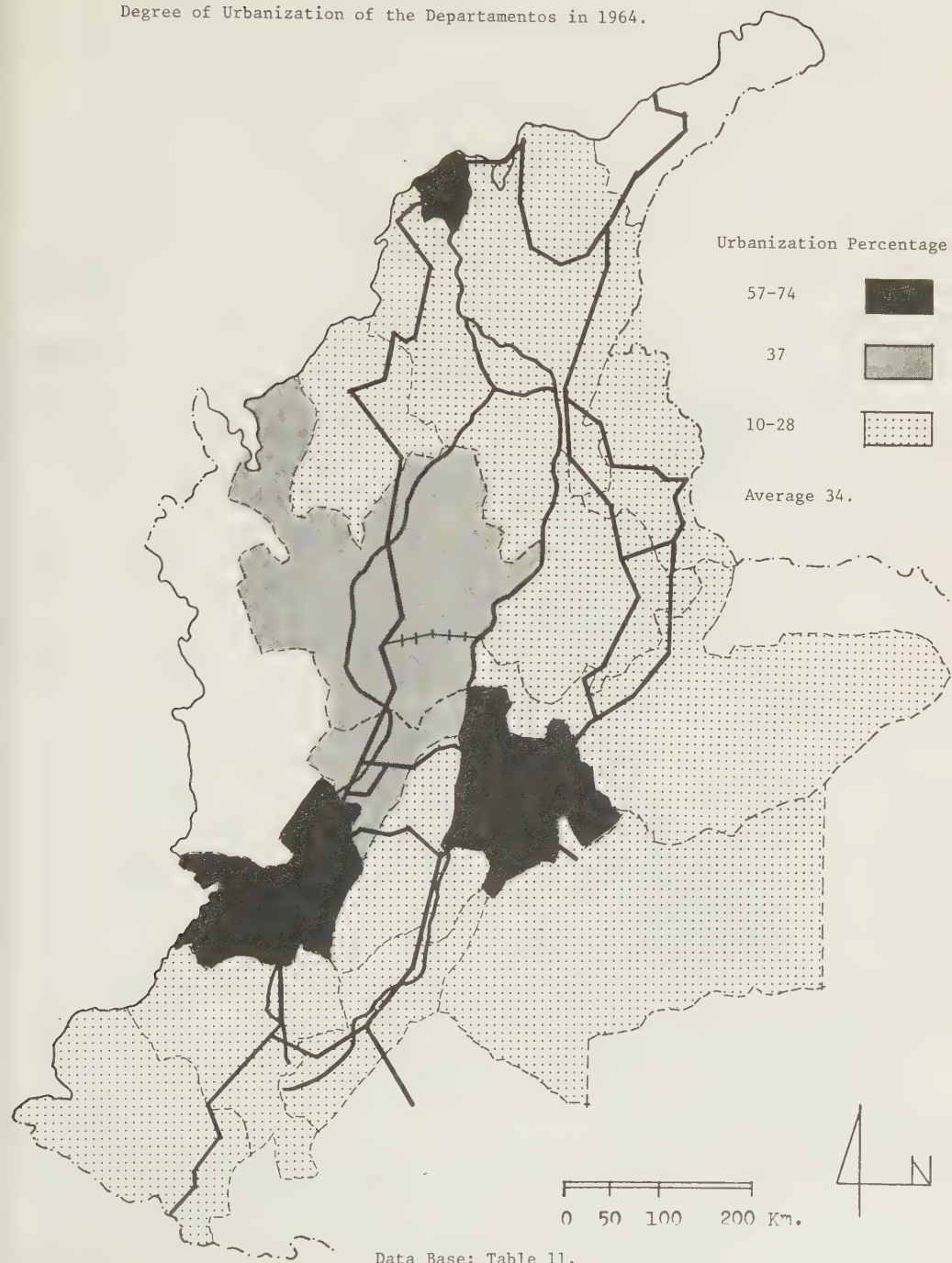
1^{x)} = Andean Region

2^{x)} = Caribbean Region

Data Base: Census 1964

Map 13.

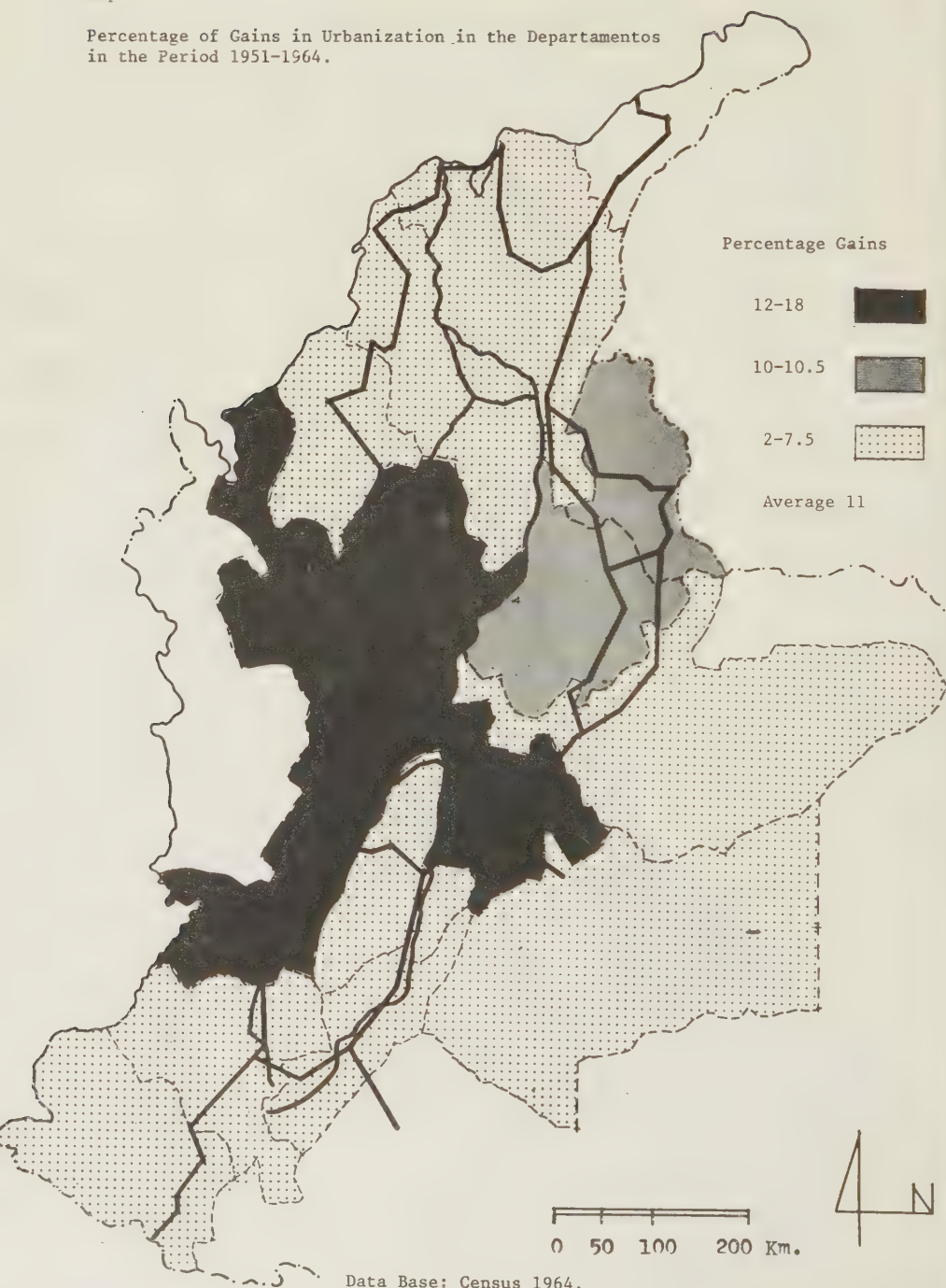
Degree of Urbanization of the Departamentos in 1964.



Data Base: Table 11.

Map 14.

Percentage of Gains in Urbanization in the Departamentos
in the Period 1951-1964.



find it profitable to stay on and provide the large urban area with agricultural products.

An answer to this question would be very interesting. The data, however, are scarce. A look at the age pyramids in the urban and rural areas of this departamento shows that there are the same percentages of people over 65 years - about 3 per cent - but the percentages of youth under 15 years are considerably larger in the rural areas than in the urban ones - 51 against 45 per cent. This leaves a larger population in the working ages in the urban areas - 51 per cent against 46 in the countryside. This test is very inconclusive. It could mean three different things:

1. There has been a large emigration of working age people to the urban areas.
2. The proportion of children per family is higher in the countryside.
3. There has been a large immigration of working age people from other departamentos to the regional urban area in Atlantico, distorting the population pyramid and thus making comparisons with the countryside impossible at this stage of data generalization.

This test is hence very inconclusive. However, the analyses of the extension of the rural active labour force in each department which are shown in Chapter 5, Map 2 and Table 6, seem clearly to indicate the validity of our assumption in point 4.3. Atlantico is the dept with the largest rural active labour force in proportion to its small population.

Thus, it may be possible that when the depts reach a high degree of urbanization as Atlántico does - 74 per cent in 1964 - their rural population reaches a better stage and becomes functional with respect to the demand for agricultural products from the large urban areas.

This conclusion could be important in the Colombian case. It would be very interesting to see in the future if this takes also place in the case of the next most urbanized departamento, - Cundinamarca, 62 per cent in 1964 - when it reaches the same level of urbanization of Atlántico.

1.7 The Capital Cities as Attraction Centers for Interdepartmental Migration

Capital cities have special importance as they gather the centers of decision, the productive units of industrial type and the specialized services in the departamentos.

In Table 12 are shown the number of migrants to the capitals as well as the percentages they constitute of migrants to every departamento. The spa-

Table 12

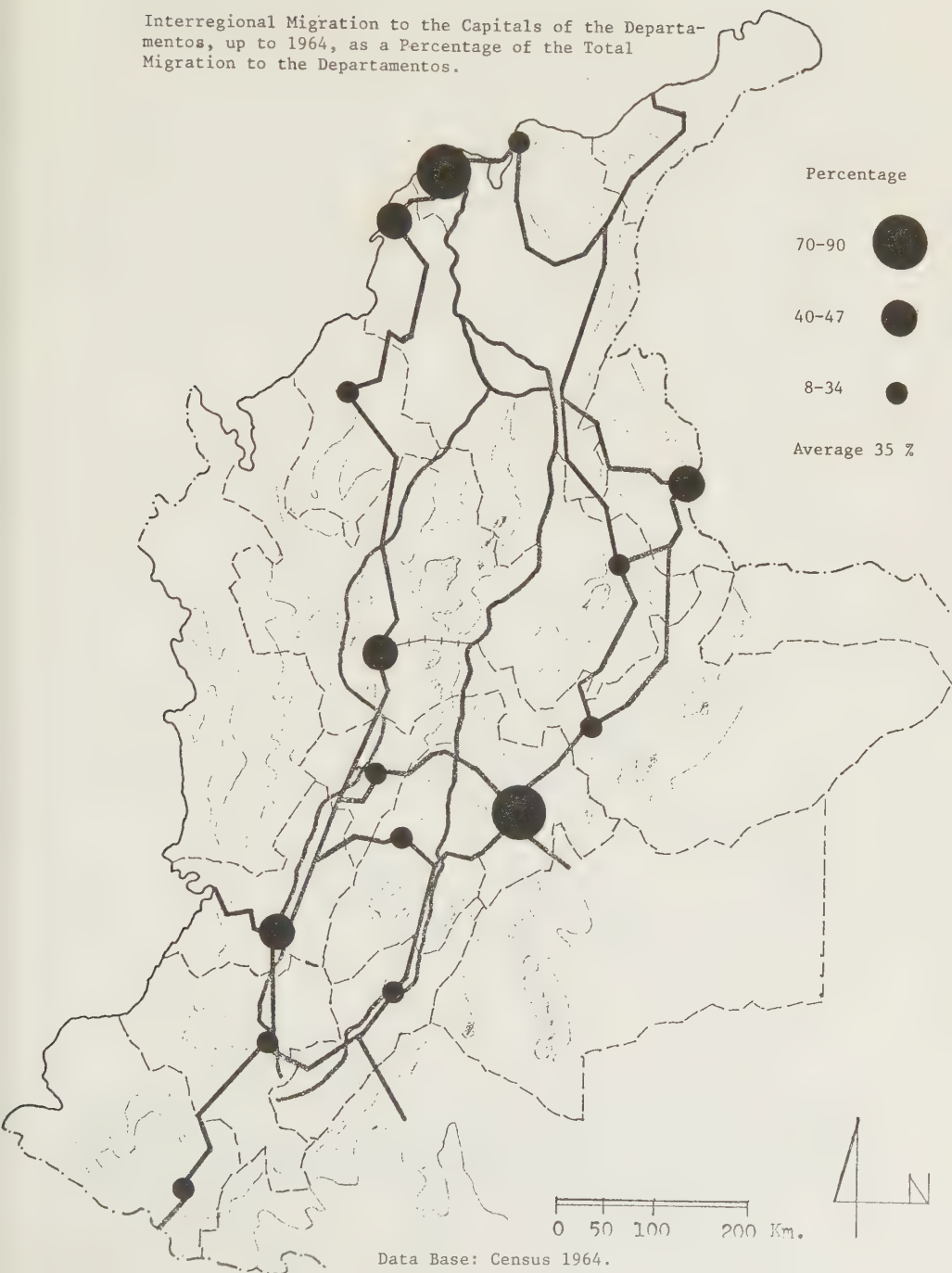
Migrants to the Capital Cities of the Departamentos as a Percent of the Migrants to the Departamentos up to 1964.

Departamentos	Capital Cities	Migrants	./. Migrants to Departamento
Antioquia	Medellín	68,674	40
Atlántico	Barranquilla	153,522	88.5
Bolívar	Cartagena	32,508	41
Boyacá	Tunja	6,165	8
Caldas	Manizales	34,320	13
Cauca	Popayán	16,185	23.5
Córdoba	Montería	12,216	24
Cundinamarca	Bogotá	495,652	72
Huila	Neiva	17,264	27
Magdalena	Santa Marta	22,566	15.5
Meta	Villavicencio	29,460	34
Nariño	Pasto	5,851	28
Norte Santander	Cúcuta	27,911	47
Santander	Bucaramanga	30,085	30
Tolima	Ibagué	32,648	26.5
Valle	Cali	239,433	41.5
Total Country			35

Data Base: Census 1964

Map 15.

Interregional Migration to the Capitals of the Departamentos, up to 1964, as a Percentage of the Total Migration to the Departamentos.



tial distribution of these percentages are shown on Map 15.

Migration to the capitals constitutes an average of 35 per cent of immigration to the departamentos. There are two groups of departamentos with attraction force higher than the average in the capitals.

The leading ones are Atlántico and Cundinamarca with the regional centers Barranquilla and Bogotá. The next group with attraction higher than the average are Antioquia and Valle with the regional centers, Medellín and Cali, plus Norte Santander at the north of the Andes and Bolívar on the Caribbean.

The remaining nine departamentos have capitals with attraction force lower than the average. Seven of them are in the Andes and two in the Caribbean region. The very strong position of the regional urban areas with respect to the number of migrants they attract, comes here forward very strongly.

1.7.1 Migration to the capital of the country

Bogotá is a special case in relation to its importance in the system of urban areas. This city constitutes not only the most important regional center in the Andean region, but its functions of a national metropolis give it importance and attraction force reaching the whole of the country.

The city has grown at a rate of 7 per cent between 1951-1964. More than half of its 1.7 million inhabitants in 1964 were born in other places.

Migration from the departamentos to the city is shown on Map 16. Heavy movements come from its own departamento, and from the nearest neighbours to the east and south of the Andes - Boyaca, Tolima and Santander. The city's attraction is felt strongest on the eastern side of the Andean area, where the intervening attraction of the two other Andean regional centers does not reach so intensely.

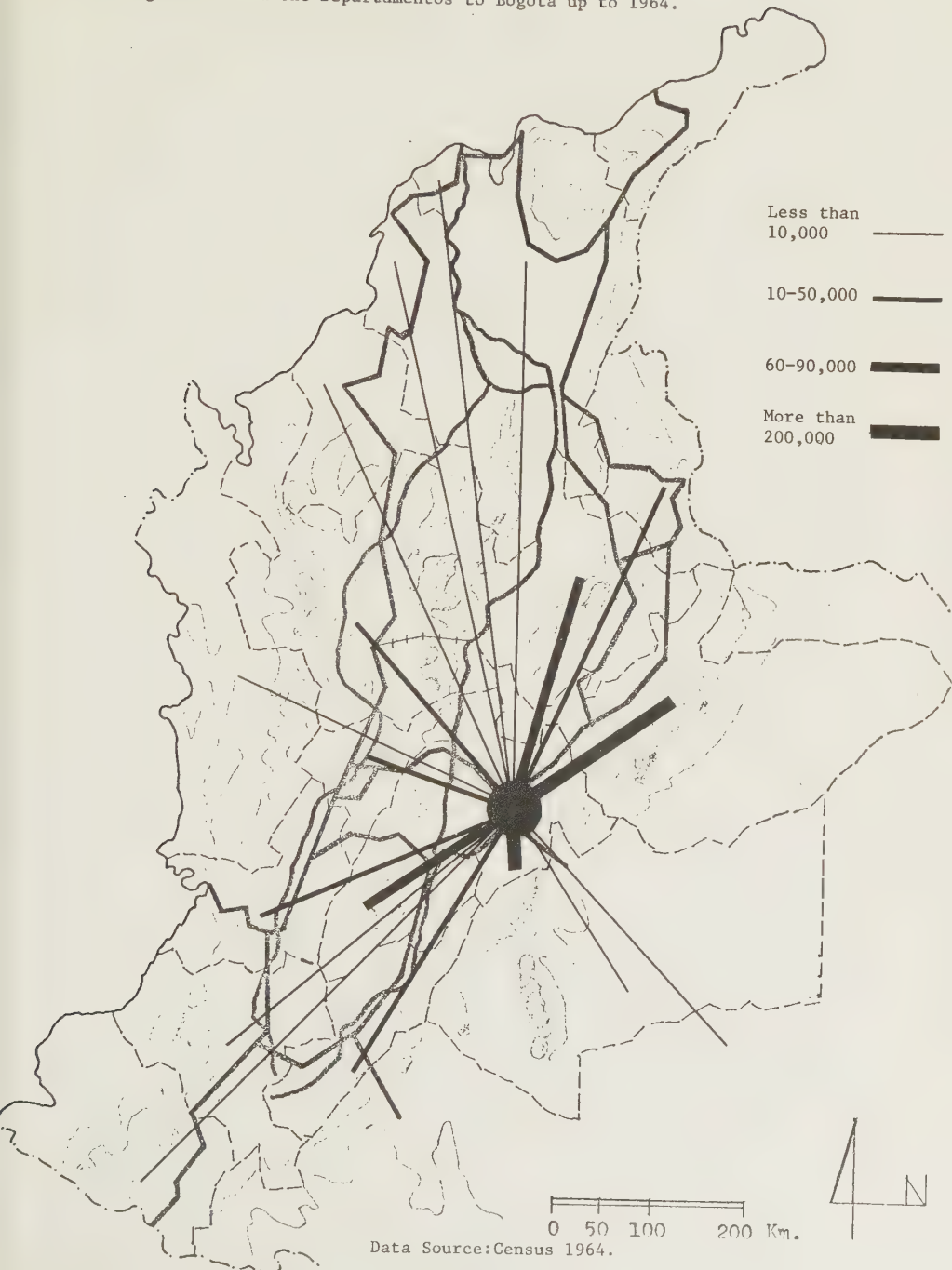
Migration to the city tends to diminish inversely to distance. The southern parts of the Andean region and also the Caribbean region have much smaller migration flows to Bogotá, also in very large part because of intervening influence by other regional centers.

2. Summary

1. It was found with respect to the population growth rates on a regional basis that an analysis of this variable - on the basis of the administrative regions of the country - gave some results which showed only five departamentos growing at higher than the average rates. They were Atlántico, Magda-

Map 16.

Migration from the Departamentos to Bogotá up to 1964.



lena, Valle, Cundinamarca and Córdoba. However, an examination of the same variable at the level of urban areas, revealed that all of them, even in regions with entirely low grow rates, were increasing their population very fast. It was due to outmigration from the rural areas.

The urban areas are all concentrated to two regions. One on the Caribbean coast. And the main one at the center of the Andean area. Urban areas are to be seen as the leading elements of the structure of growth of the total population of the country. Although they did not have more than 35 per cent of the population in 1964, it is expected that in 1985 they will already have 50 per cent.

Urbanization in Colombia can be seen as a dynamic diffusion process which has started in some of the urban regions - Bogotá, Cali, Barranquilla - and which has repercussions at all the levels of the rural and urban areas. Urbanization waves arrive first to those areas which have more direct contact with the regional centers - as in the case of Antioquia with its city Medellín, not only because of physical vicinity, but because there are in those regions some elements that can accelerate the process and because there are not barriers against the introduction of the same processes.

It became evident that in the departamentos where the process of urbanization is slower, there appear large flows of rural migrants to the urban areas of other departamentos where the large regional urban centers are located.

The urban population becomes also overconcentrated around the regional urban centers - Bogotá, Medellín, Cali and Barranquilla. They not only attract large flows of migrants, but are also the exclusively dominant centers with respect to the production of the scarce and vital goods and services of the country. Due to their excessive dominance, there is a large series of urban areas and their hinterlands which are being starved with respect to specialized activities and production of goods. Additionally in relation to their possibilities for offering jobs.

As the largest parts of the system of urban areas are relegated to being mere passive peripheral units, the urban population goes to the largest areas. Bogotá for example, with 1.7 million in 1964, is expected to become 7 million in 1985. Along with the other three regional centers it is expected to have in that year 15 million, about half the country's population. The overconcentration of the population together with the very high unemployment rates make the prospects for the future very gloomy.

CHAPTER FOUR. MEASUREMENT OF MIGRATION FLOWS.

The most important migration flows up to 1964 will be analyzed in this chapter. The data base for this chapter is, in many parts, very thin. Many estimates have been made by the author. It has not been possible to divide the urban population, as we have done earlier with 30,000 inhabitants as threshold. We have been constrained to use official statistics with urban thresholds of 1,500.

Two very interesting aspects of the migration problem will be analyzed:

1. The migration flows between the different departamentos, making a distinction between rural and urban migration flows. This part concerns the fast process of overconcentration of the population in a few large urban areas.
2. The important and large flows of the rural population towards the urban areas in the same depts where they reside. There is a very fast process of urbanization in every region. In those depts with a faster economic development, one can see the growth of large regional urban centers. Additionally in the neighbouring depts develops a variety of large and medium sized urban areas within the range of the large regional center. In depts which do not have key economic assets for development, there is large emigration to the urban areas of other depts. Yet, there is always one urban area, in general the capital city of the dept, that increases its population very fast - contrary to the rest of the dept - due to immigration from the rural areas.

1. Interdepartmental Migration Flows

Statistics on the interdepartmental migration flows can be seen in Table 1. Flows have been given in thousands. Net results are also given in index form, with a variation of + 100 for immigration and - 100 for emigration.

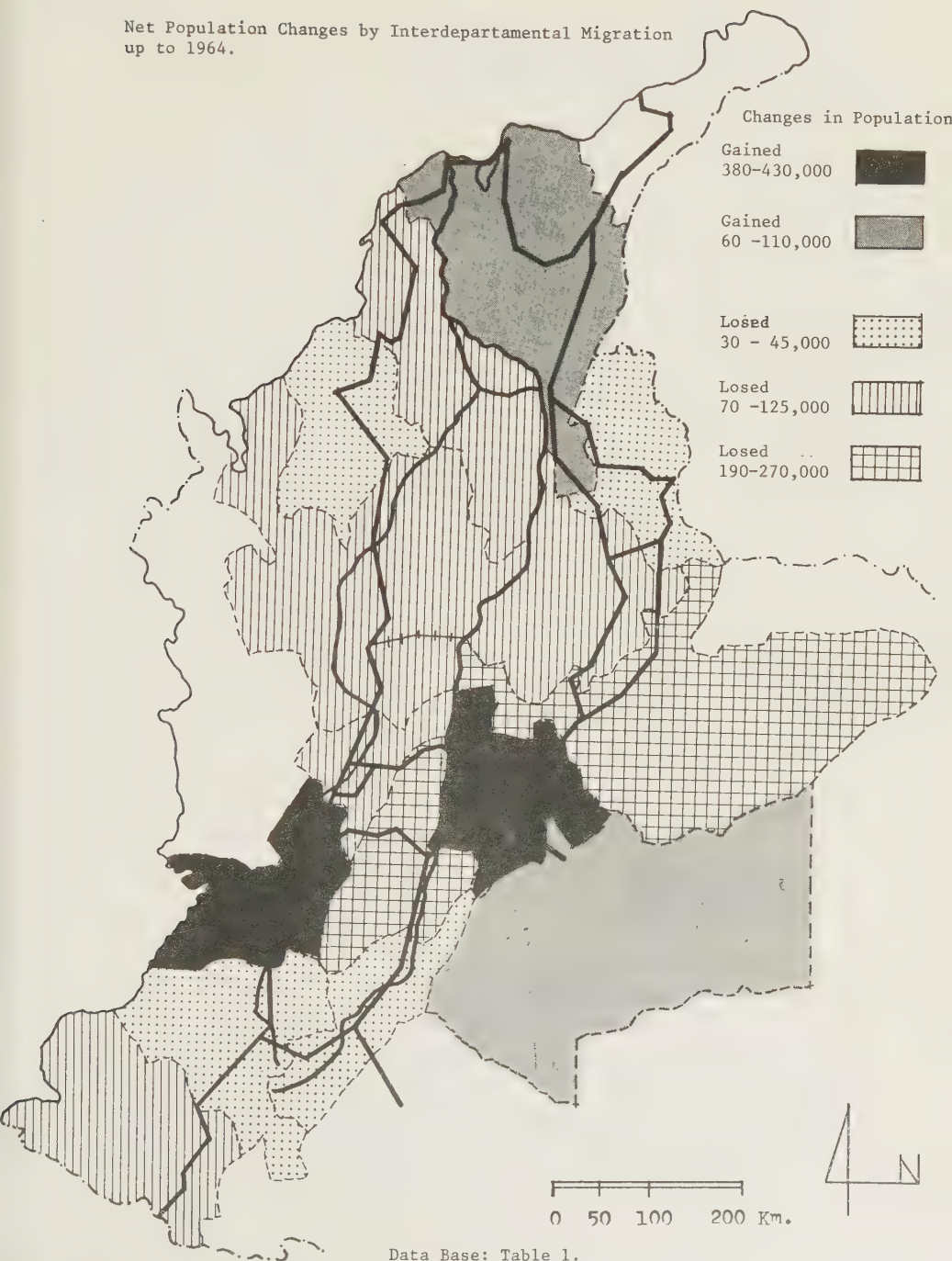
There were in 1964 five depts with net migration gains. They were: Cundinamarca, Valle, Magdalena, Atlántico and Meta.

The remaining eleven depts were all migration losers. The spatial relations of these depts can be seen on Map 1. Two of the migration winners were on the Caribbean coast and the other three in the inland of the country. Of these latter ones, there was the case of Meta, the frontier region at the east of the Andes which had migration gains. The migrants to the dept look for agricultural type jobs.

As we can notice on the map, one of the vertiex depts - Antioquia - in the coffee triangle, appears as a net migration loser, a rather heavy one.

Map 1.

Net Population Changes by Interdepartmental Migration
up to 1964.



Data Base: Table 1.

Table 1

Colombia. Interdepartmental Migration Flows 1951 and 1964.

(Flows given in thousands)

Departamentos	1951				1964			
	In	Out	Net	Index	In	Out	Net	Index
Antioquia	67	218	-151	- 52	169	277	-108	- 24
Atlántico	103	30	+ 73	+ 55	167	58	+110	+ 49
Bolívar	30	101	- 71	- 48	77	191	-115	- 43
Boyacá	33	227	-194	- 74	77	345	-268	- 63
Caldas	232	223	+ 9	+ 2	269	390	-121	- 18
Cauca	39	75	- 35	- 31	69	113	- 44	- 24
Córdoba	x)				51	74	- 23	- 18
Cundinamarca	294	171	+123	+ 27	669	238	+430	+ 47
Huila	43	57	- 14	- 11	64	97	- 33	- 21
Magdalena	61	54	+ 7	+ 6	146	86	+ 60	+ 26
Meta	x)				87	21	+ 66	+ 61
Nariño	10	58	- 49	- 71	17	108	- 91	- 73
Norte Sder	27	52	- 25	- 31	50	81	- 31	- 24
Santander	69	88	- 20	- 11	98	170	- 72	- 27
Tolima	113	154	- 41	- 15	122	316	-194	- 44
Valle	408	81	+327	+ 67	569	190	+380	+ 50
Total	1,529	1,559	0	0	2,701	2,755	0	0

$$\text{Index} = \frac{\text{Net Migration}}{\text{In} + \text{Out Migration}}$$

Index = -100 = Exclusively Outmigration Flow

Index = +100 = Exclusively Inmigration Flow

x) Córdoba and Meta did not exist as independent administrative units in 1951.

Data Source: Departamento Nacional de Planeación 1969 (2), p. 23.

This case is very interesting. Medellín, the capital of this dept, is a regional urban area, and in size and importance the second city in the country. Although the city has grown very fast, the dept as a whole has lost population to other depts.

The two very heavy migration winners in the Andean region - Valle and Cundinamarca - with gains between 380-430,000 inhabitants have as capitals Cali and Bogotá, the other two regional urban areas in the region. This fact explains the attraction force of the depts. Emigration to them is strongest from the neighbouring regions and in general decreases with distance.

The Caribbean region shows two migration winners, Atlántico and Magdalena. The first dept has the regional urban center of the region - Barranquilla. Magdalena is a growing agricultural center and this can explain its attraction force. This departamento is a resource frontier region which is being rapidly integrated to the rest of the Caribbean. Migration areas are very well defined in the case of the Caribbean region. This is due to the isolation of the region respect to the rest of the country.

The interesting spatial relations between the departamentos through migration can be seen on Map 2. In order to simplify the geographical concept of the depts as centers of migration, they have been topologically transformed to points located where the capital cities are located. The map registers migration movements to the five net winner areas we have seen before. Movements registered on the map are those larger than 10,000 migrants.

The largest movements of the population are in the Andean region. Movements are along and across the high mountains and the low valleys in between. The movements are from the four points of the horizon towards those depts where the two regional urban areas Bogotá and Cali are located.

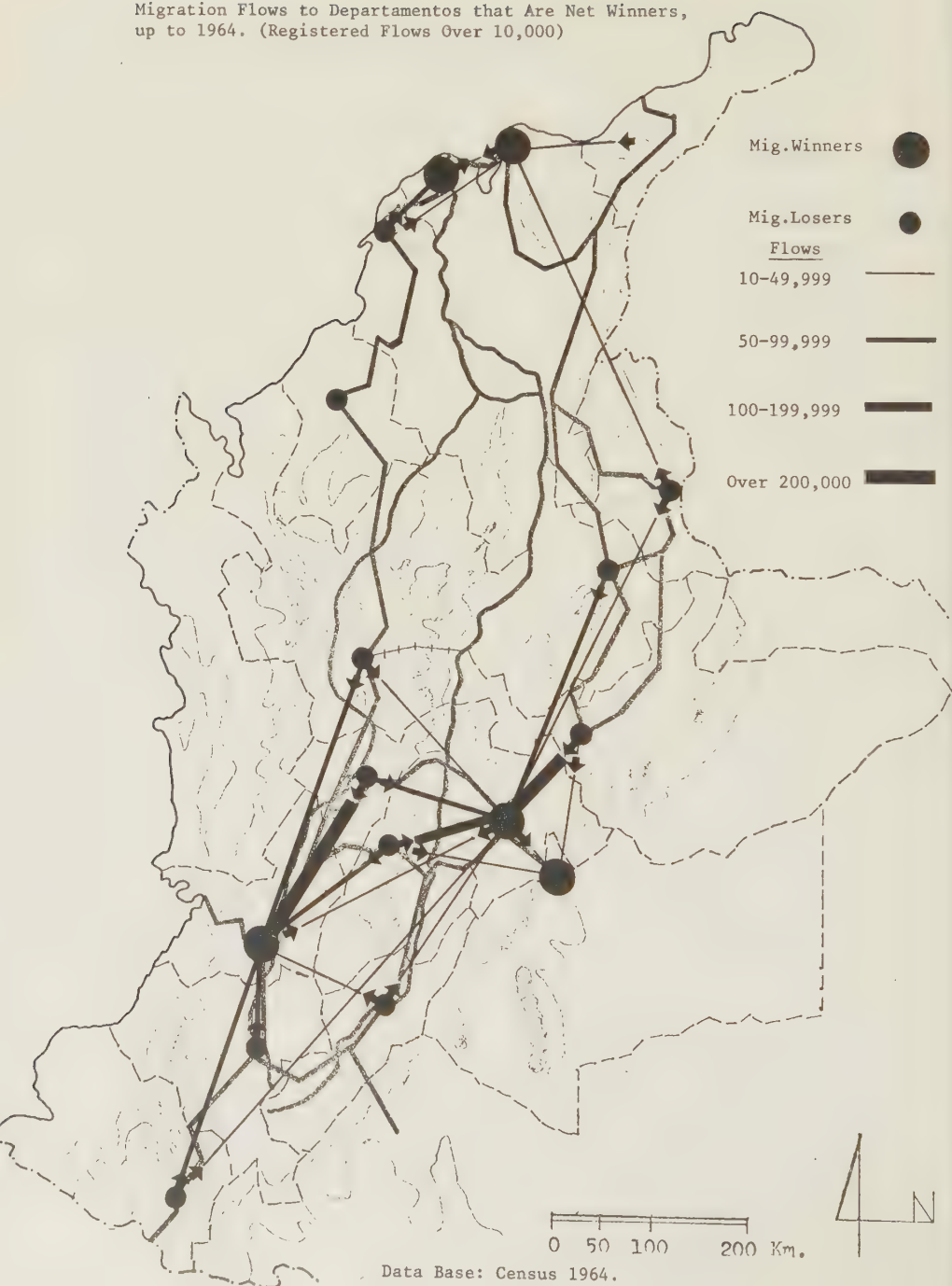
From the point of view of the interdepartmental migration flows, the population of the country is clearly becoming concentrated around the regional urban areas - with exception of Medellín. And also in the frontier regions Magdalena on the Caribbean and Meta, east of the Andes.

1.1 Migration Flows "Against the Stream".

Migration flows have not only gone in direction to the regions which are net migration winners. At least on the urban scene, a large series of flows have run in the Andean region towards regional and subregional urban areas in depts that are net migration losers. Three of the depts - Antioquia,

Map 2.

Migration Flows to Departamentos that Are Net Winners,
up to 1964. (Registered Flows Over 10,000)



Caldas, Tolima - are in the coffee triangle where the traffic is most intensive. The fourth - Santander - is in the northern part of the Andean region.

Interestingly, there are large flows coming to depts losers from the depts that are net migration winners. In this case it does not have to do with returnees as the statistics do not register them, but of one way migrants. Migration flows totals coming to each of these loser depts are over 100,000. This gives a picture of the large size of movements "against the stream". These flows are registered on Map 3.

Additionally, there is a series of depts that are net migration losers, which have a series of out-going flows to other depts, not necessarily to those that are net migration winners. The new series includes total migration flows larger than 100,000 and includes almost all the loser depts. They are shown on Map 4. With one exception, these departamentos are located in the Andean region. Largest flows go to the depts that are net winners. Yet, there are also large flows between loser depts. Movements are almost always restricted to short distances. It is also interesting to notice migration flows to the frontier regions to the east of the Andes from neighbouring depts.

Net results of migration movements between the depts for the period 1951-1964 are shown in Table 2. The rural-urban disaggregation of the results is shown in Table 3.

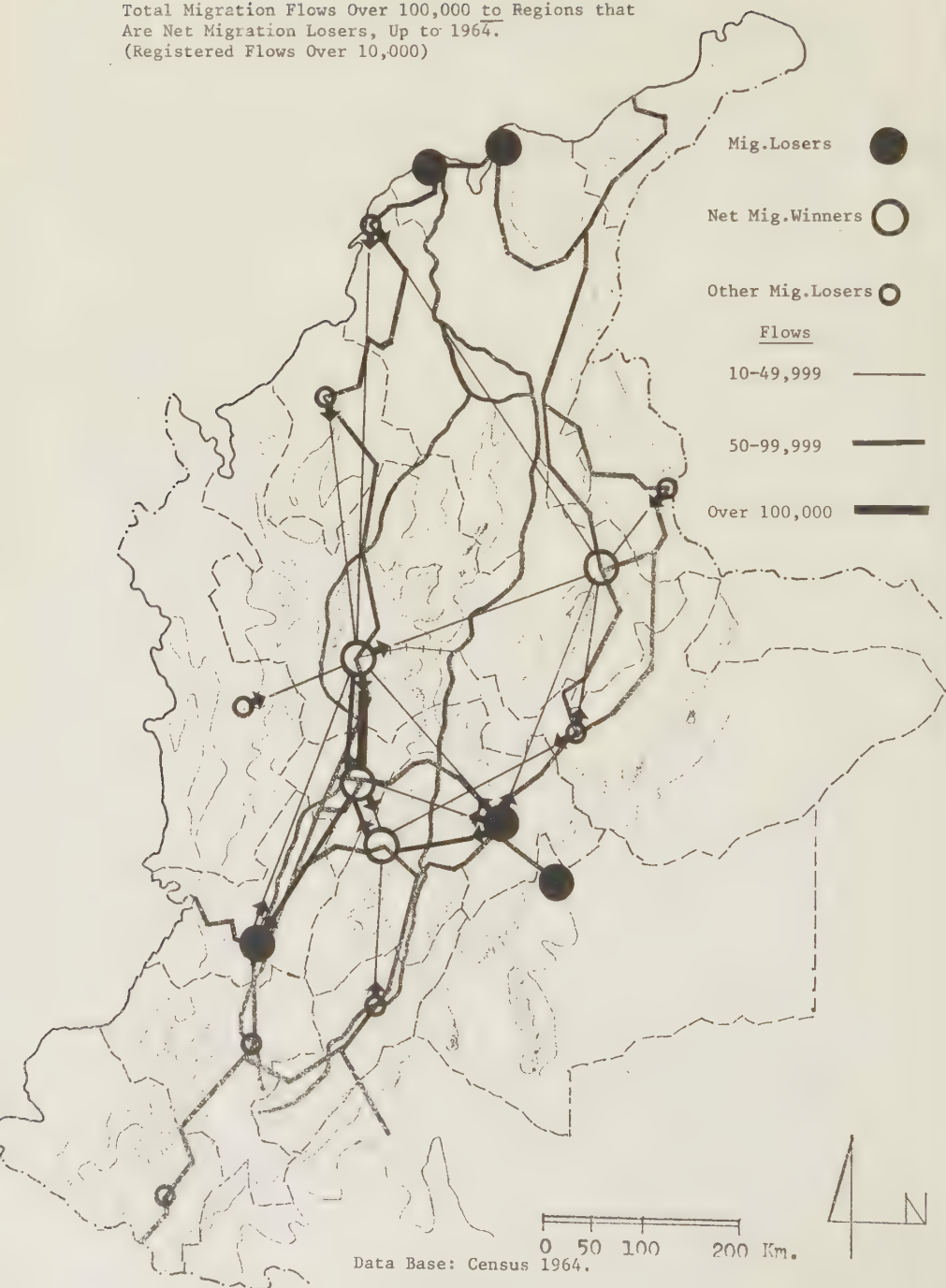
We must notice in the last table, the very heavy concentration of urban migrants to Cundinamarca, where Bogotá is located. The primacy of the dept in the period is marked by about half of all the urban migrants arriving to it. Tolima and Caldas depts, both in the coffee triangle, had the largest absolute numbers of outgoing migrants from the urban areas. They had also the largest emigration indexes.

It is interesting to look at the rural distribution of the migration movements during the period. There were only four depts - Antioquia, Cauca, Magdalena, Valle - with net immigration results during the period. Their immigration flows were not high.

At the same time as there was out-going migration from the rural areas of all the depts, there were also flows of incoming rural population from other depts that had a tendency to neutralize the number of emigrants. The number of rural migrants from the depts, to the urban areas of others, was only 34 per cent of the total number of rural migrants. In absolute values, of 389,000 migrants in the rural areas, only 131,000 went to the urban areas of other depts, the rest to the rural ones. The results of the interdeparta-

Map 3.

Total Migration Flows Over 100,000 to Regions that
Are Net Migration Losers, Up to 1964.
(Registered Flows Over 10,000)



Map 4.

Total Migration Flows Over 100,000 from Regions that Are
Net Migration Losers, Up to 1964.
(Registered Flows Over 10,000)

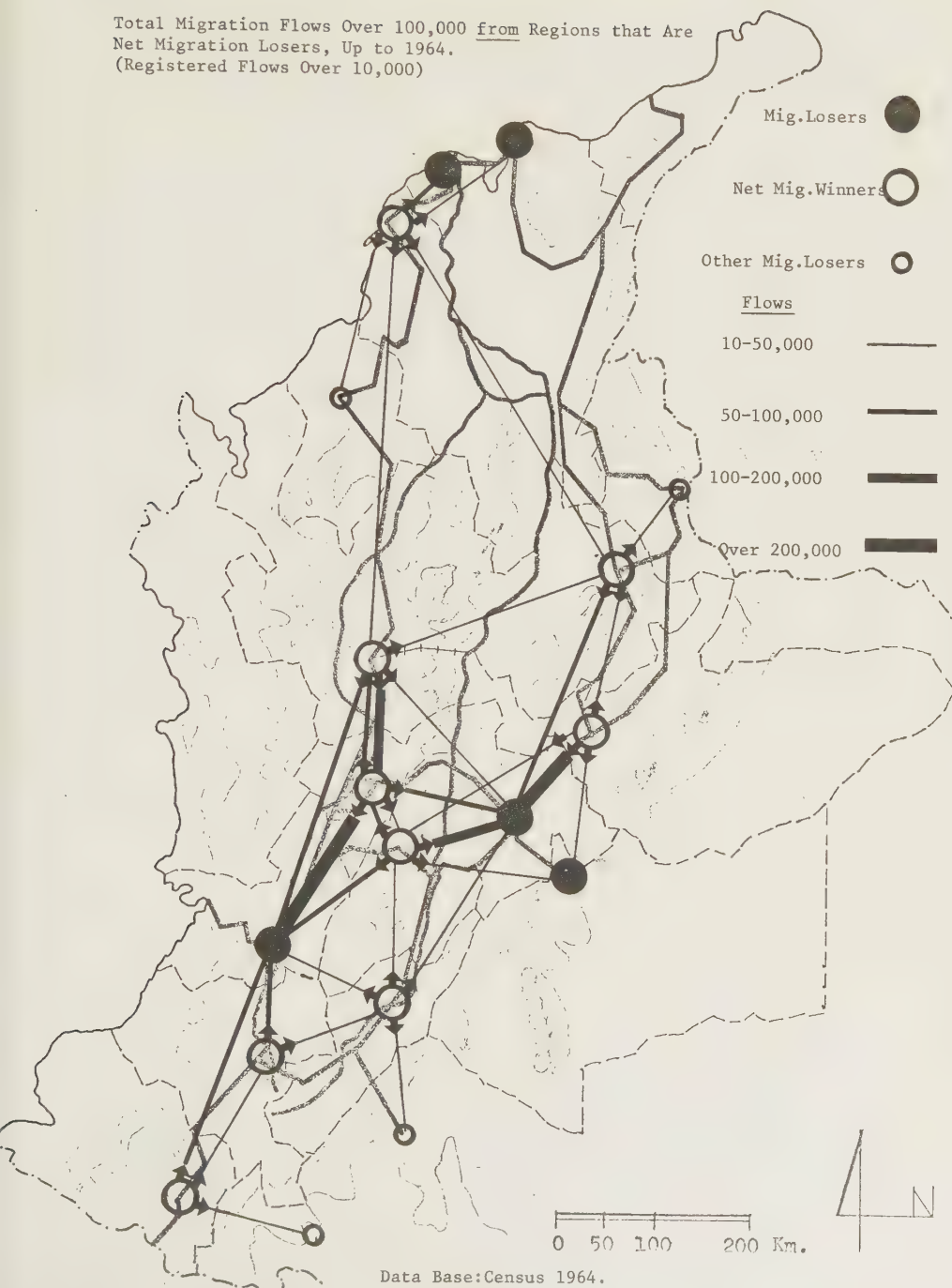


Table 2

Colombia. Interdepartmental Migration Flows, 1951-1964.

(Flows given in thousands)

<u>Departamentos</u>	<u>In</u>	<u>Out</u>	<u>Net</u>	<u>Index</u>
Antioquia	102	59	+ 43	+ 27
Atlántico	64	28	+ 36	+ 39
Bolívar	47	90	- 43	- 31
Boyacá	44	118	- 74	- 46
Caldas	37	167	- 130	- 64
Cauca	30	38	- 8	- 8
Cundinamarca	375	67	+ 308	+ 70
Huila	21	40	- 20	- 33
Magdalena	85	32	+ 53	+ 45
Nariño	7	50	- 43	- 75
Norte Sder	23	29	- 6	- 12
Santander	29	82	- 53	- 47
Tolima	9	162	- 153	- 90
Valle	161	109	+ 52	+ 19
Total	1,034	1,071		

Data Source: Departamento Nacional de Población 1969(2), p. 23 bis.

Table 3

Urban-Rural Interdepartamental Migration Flows, 1951-1964.

(Flows given in thousands)

<u>Departamentos</u>	<u>Urban</u>				<u>Rural</u>			
	In	Out	Net	Index	In	Out	Net	Index
Antioquia	60	37	+ 23	+ 24	42	22	+ 20	+ 31
Atlántico	62	22	+ 40	+ 48	2	6	- 4	- 50
Bolívar	32	59	- 27	- 30	16	31	- 15	- 32
Boyacá	23	68	- 45	- 49	21	50	- 29	- 40
Caldas	22	114	- 92	- 67	15	53	- 38	- 55
Cauca	14	24	- 10	- 26	16	14	+ 2	+ 6
Cundinamarca	355	31	+324	+ 84	20	36	- 16	- 28
Huila	10	24	- 14	- 41	11	16	- 5	- 18
Magdalena	37	22	+ 15	+ 26	48	10	+ 38	+ 65
Nariño	4	29	- 25	- 75	3	21	- 18	- 75
Norte Sder	16	20	- 4	- 13	7	9	- 2	- 12
Santander	19	54	- 35	- 47	10	28	- 18	- 47
Tolima	5	105	-100	- 90	4	57	- 53	- 86
Valle	118	73	+ 45	+ 23	43	36	+ 7	+ 8
Total	777	682	+ 95		258	389	-131	

Data Source: Departamento Nacional de Planeación, 1969(2), p.23 bis p. 29,
and author's own estimates.

mental migration in this table are very interesting. However, the most important part of the rural to urban migration takes place within the same depts, i. e., it is an intradepartamental affair.

The results of the intradepartamental rural migration are shown in next section.

2. Total Rural to Urban Migration in the Period 1951-1964

Rural to urban intradepartamental migration has been extrapolated by estimating the rural population in every dept for the year 1964, if no migration at all had taken place to or out of the depts since 1951. The results were weighted against the real population in every dept in 1964 and thus the net results were obtained.

The results of the rural to urban intradepartamental migration added to those of the interdepartamental migration that we saw before are registered in Table 4 and on Map 5. The results give as a whole an overwhelming importance to the migration results inside the depts. The rural to urban migration between the depts is only 6 per cent of the total rural migration for the period under study.

The very heavy concentration of the population to the urban areas takes place in the same depts where the large regional urban areas in the Andean region - Bogotá, Medellín, Cali - are located. It takes also place within the more economically active area located in the middle of the three Andean core centers. Rural to urban migration decreases outside the coffee triangle, but it is rather sizable even in depts where it means rather sizable emigration to urban areas in other depts, as in the cases of Boyacá, Tolima, Nariño, Santander. Atlántico dept in the Caribbean region - with Barranquilla as urban center - is also the core for a second region of attraction for rural migrants.

The two attraction regions are well separated now. In the future their frontiers may become blurred as the process of rural to urban migration spreads to the intermediate depts.

Results of the rural to urban migration as a percentage of the rural population in every dept in 1951 are shown on Map 6. The depts in the coffee triangle - with the exception of Antioquia - had very high migration percentages and form an extense area of urban attraction.

The highest values of migration in absolute and percentage form are found in depts with regional urban areas. Undoubtedly there is a chain reaction process between these cities and migration. The cities attract migrants; new

Table 4

Rural to Urban Intradepartamental and Interdepartamental Migration Flows in the Period 1951-1964.

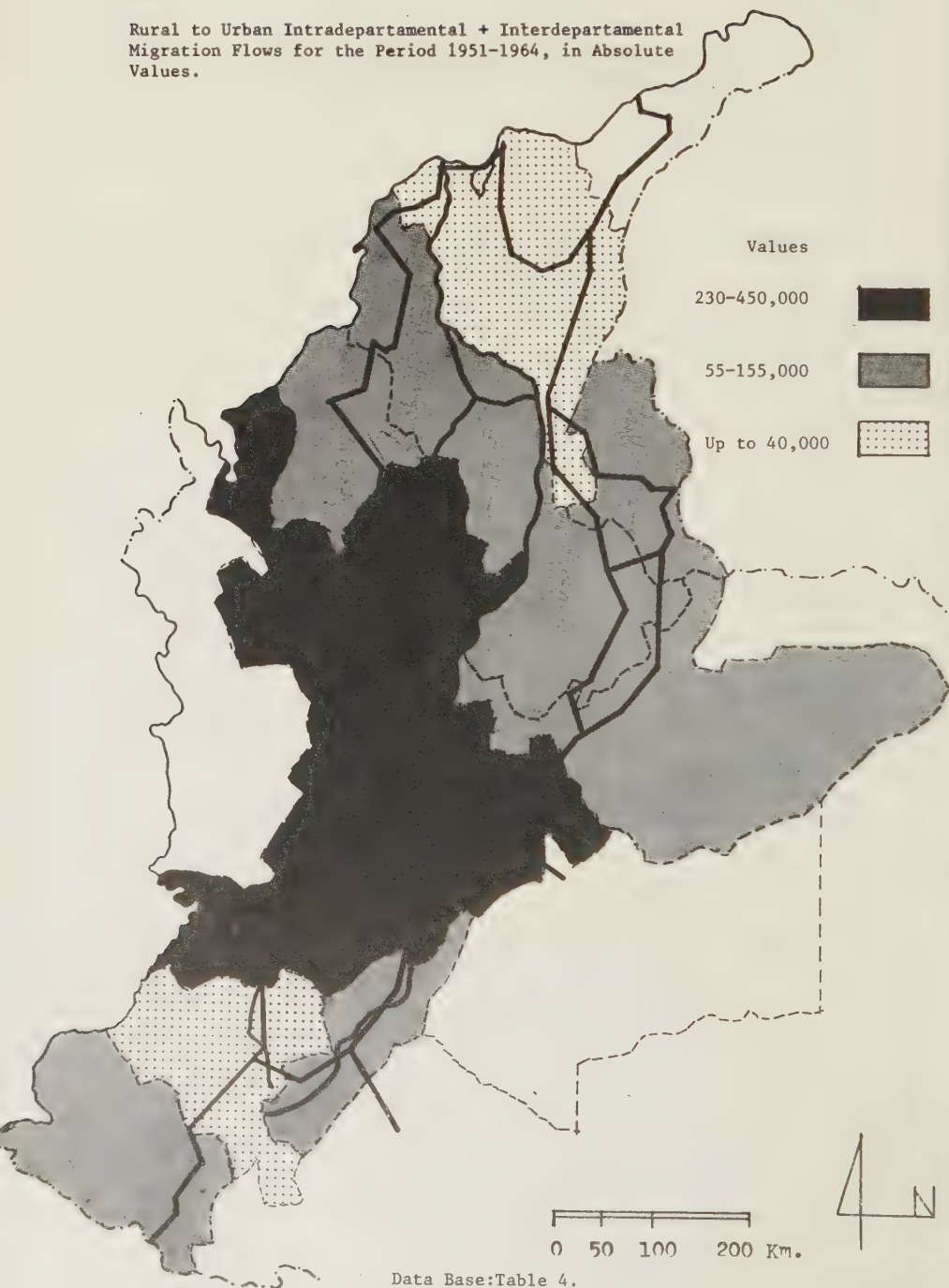
(Positive Flows Indicate Out-Migration, Negative Flows, In-Migration)

Departamentos	(1) Intra - Migrat	(2) Inter - Migrat	(3) Net	(4) Net Mig as a % of Rural Pop in Depto in 1951
Antioquia	325,802	- 20,000	305,802	32.6
Atlántico	25,921	+ 4,000	29,921	58.0
Bolívar	63,573	+ 16,000	79,573	23.0
Boyacá	118,708	+ 29,000	147,708	22.0
Caldas	286,764	+ 38,000	324,764	49.0
Cauca	40,499	- 2,000	38,499	10.6
Cundinamarca	432,795	+ 16,000	448,795	58.0
Huila	54,765	+ 5,000	59,765	30.0
Magdalena	40,154	- 38,000	2,154	0.8
Nariño	58,271	+ 18,000	76,271	18.0
Norte Sder	60,542	+ 2,000	62,542	26.0
Santander	136,929	+ 18,000	154,929	30.0
Tolima	181,246	- 53,000	234,246	45.0
Valle	332,542	- 7,000	325,542	58.5
Total	2,158,511	+131,000	2,289,511	32.5

Data Sources: Intradepartamental Migration on the basis of estimates by the author.
Interdepartamental Migration, based on Departamento Nacional de
Planeación 1969 (2) p. 23.

Map 5.

Rural to Urban Intradepartamental + Interdepartamental
Migration Flows for the Period 1951-1964, in Absolute
Values.



Map 6.

Rural to Urban Migration for the Period 1951-1964,
as a Percentage of the Rural Population in Every
Region in 1951.

Percentage

45-58



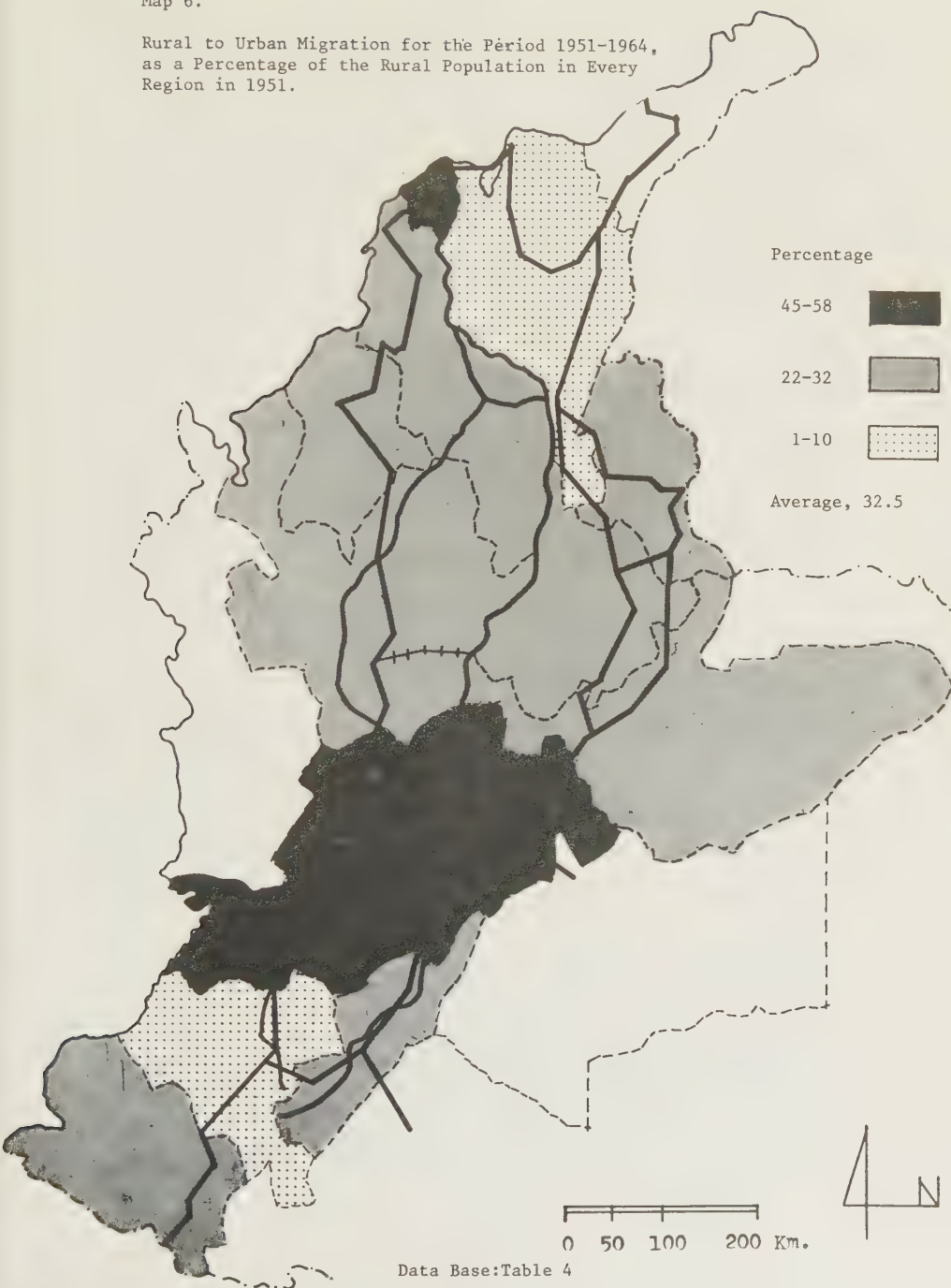
22-32



1-10



Average, 32.5



Data Base: Table 4

migrants increase the importance of the same cities and through increased contacts, many more migrants arrive in later stages.

The depts with largest rural to urban migration are at the same time those which have attracted the largest total interdepartamental migration flows. This is not just a coincidence. It is a confirmation of the attraction that the large urban areas Bogotá, Medellín, Cali, Barranquilla which are located there are exerting at a regional level.

Rural to urban migration movements are by far the largest of the changes of location of the Colombian population.

Table 5

Main Migration Flows during the Period 1951-1964

Rural to urban migration	A. Within the same depts	2,158,511
	B. To other depts	131,000
Urban to urban migration		644,000
Rural to rural migration		258,000
	Total	3,191,511

Data Source: Tables 3 and 4.

92 per cent of the total migration movements were within or towards the urban areas. 72 per cent of all the migration movements were from the rural to the urban areas. The very great problem in connection with these large migration flows is that the migrants are unemployed citizens coming to live in urban areas where unemployment is also widespread. But the problem of unemployment is to be seen in next chapter.

3. Some Important Characteristics of the Migrants

In this section, some of the most important characteristics of the migrants as sex, age, and education will be revised. For the two first variables it

will be used an important study of Colombian migration by T.P. Schultz¹⁾ covering the period 1951-1964.

3.1 Average Migration Rates by Region, Sex and Age, for the Period 1951-1964

- See Table 6. The most important facts to observe are:

1. Urban areas as a whole appear with annual immigration rates of 2.26 and towns and open countryside appear with emmigration rates of .36 and 3.2 respectively. However, there are wide differences in the propensities to migrate between the sexes and among the different age groups.

2. The highest immigration rates for both sexes in the urban areas are for children less than 5 years of age who come with their parents. They are also very high for children up to 9 years of age. The lowest immigration rates are for the ages 35-39.

The distinction by sexes shows that, as a whole, women migrate at higher rates to the urban areas than men. Rates were very high for girls up to 15 years of age. The lowest migration rates to the cities among women are for the 35-39 years of age bracket.

Migration rates to the urban areas for men are very high up to the age of 19, and also between 25 and 29 years.

3. Both men and women have emigrated from the small towns of up to 10,000 inhabitants. Migration rates are highest for the youngest up to 15 years of age. There is, however, immigration rates to the towns for men over 27 years of age and for women between 30 and 34. This is an indication that some of the population of the open countryside are migrating to rural towns

1) Population Growth and Internal Migration in Colombia. The Rand Corp. Sta. Monica, California, 1969.

Also, Nelson, Shultz and Slighton. Structural Change in a Developing Economy. Colombia's Problems and Prospects. Princeton U. Press 1971.

Shultz made a sample study based on data for the 1964 Census. He divided the urban population into urban areas, with population larger than 10,000 and towns with population centers which did not reach the 10,000 limit. Many of those centers he included as towns do not have even 1,000. Lastly, he had another classification for rural areas separately.

In our study, we have included as rural areas, even the population living in towns up to 30,000. Although in the comparison with Shultz data we are going to make the limits for urban population do not coincide with ours, we must make-do with the scant existing material. We do think, however, that the existing data will permit us to see the most important and relevant facts. Those which are excluded, are of such dimensions that they can not change the outcome of the analysis.

Table 6

Annual Average Migration Rates for a Representative Sample of Colombian Municipalities by Region, Age and Sex, 1951-1964
(in percent of average age cohort between 1951 and 1964)

Region and Sex (Sample Size)	Initial Age Cohort in 1951									
	0 - 4	5 - 9	10 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	0-44
Cities:										
1 Cabeceras - greater than 10,000 in 1964 (17)										
Male	2.62	2.21	1.38	2.22	1.68	2.30	1.89	1.96	1.64	2.12
Female	3.55	3.34	2.33	1.45	1.24	1.53	1.89	.93	1.37	2.38
Both sexes	3.11	2.83	1.90	1.80	1.45	1.89	1.89	1.41	1.50	2.26
Towns:										
2 Cabeceras - less than 10,000 in 1964 (114)										
Male	.33	-2.26	-3.04	.27	.41	.48	.36	.39	.24	-.49
Female	1.24	-.08	-1.92	-1.30	-.65	-.20	.19	-.73	-.26	-.26
Both sexes	.81	-1.05	-2.42	-.58	-.17	.11	.27	-.21	-.02	-.36
Countryside:										
3 Rural areas outside of all Cabeceras (131)										
Male	-2.50	-4.17	-4.62	-3.30	-3.57	-2.12	-1.97	-2.35	-2.02	-3.23
Female	-3.17	-4.19	-3.42	-3.07	-2.96	-2.74	-2.06	-3.56	-3.01	-3.34
Both sexes	-2.82	-4.18	-4.02	-3.19	-3.27	-2.41	-2.01	-2.89	-2.45	-3.2

Note: A negative migration rate means a net out-migration from the region, and conversely for a positive migration rate. A sample of 131 municipalities (about 15 percent) of Colombia was drawn randomly from those for which 1951 and 1964 census data were available on a comparable basis. Cohort survival probabilities were estimates for the country as a whole and were assumed to pertain to each municipal population in order to compute compounded average annual migration rates for each age and sex cohort. The table shows the specific migration rates from the sample and need not equal zero for the entire sample because of different population bases. For more detailed discussion of these estimates, their weaknesses, and their analysis, see I Paul Schultz, Population Growth and Internal Migration in Colombia, RM-5765-RC/AID, The Rand Corporation, Santa Monica, July 1969.

Source: Schultz, T.P., 1969, p.50.

in the active ages, while the young migrate directly to the cities. The young population of the towns leaves also for the cities and are replaced by the somewhat older population coming from the open countryside. The population of the rural towns becomes older in average while that of the cities becomes younger.

The young population is becoming concentrated in the urban areas precisely in those years when large investments in schools, housing, etc. should be made for them. The urban areas have thus their problems increased by the large immigration of the young.

4. Emigration from the rural areas reaches the highest rates both for men and women, although somewhat higher for women. Emigration rates for children between 5 and 15 years of age are the highest.

Large differentiations of the population structure between the regions are occurring as a result of the migration processes. The largest differences are found between the population of the rural areas of regions with large emigration and the structure of the population in the large urban centers.

Most of the children and the population of working age leave the countryside for the cities. Young women are leaving for the urban areas faster than young men. With great unemployment rates in the cities, it is easy to imagine the great pressures that the migrants by their sheer number can exert for all kinds of jobs and services. Of course, the urban areas in Colombia are not in a position to respond to the needs of the migrants.

The population pyramid for Boyacá, the dept that had the largest inter-regional emigration up to 1964, is shown here. The pyramid for the rural population of this dept is compared with that for the urban population of Cundinamarca, the dept with the highest number of immigrants and where Bogotá is located. Great differences appear at first glance, which confirm our previous observations. - See diagram 1. -

Very similar differences would be found if we compared the population in the other depts where urban regional centers are located, with the population of the less urbanized ones.

Diagrams 2 and 3 are intended to show the population pyramids in the slum areas which have arisen in urban areas as a result of immigration from the countryside. Bogotá is the city with the highest number of migrants among the urban areas. The city had in 1964 more than half of the population composed by migrants. Three fourths of the population in working ages had been born outside the city. 42 per cent of the population were under 15 years of age, against 47 for the country as a whole.

1964. Pop. Pyramids for urban Cundinamarca
and rural Boyaca.

Data Base: Census 1964.

Adapted from Nordström, 1957.

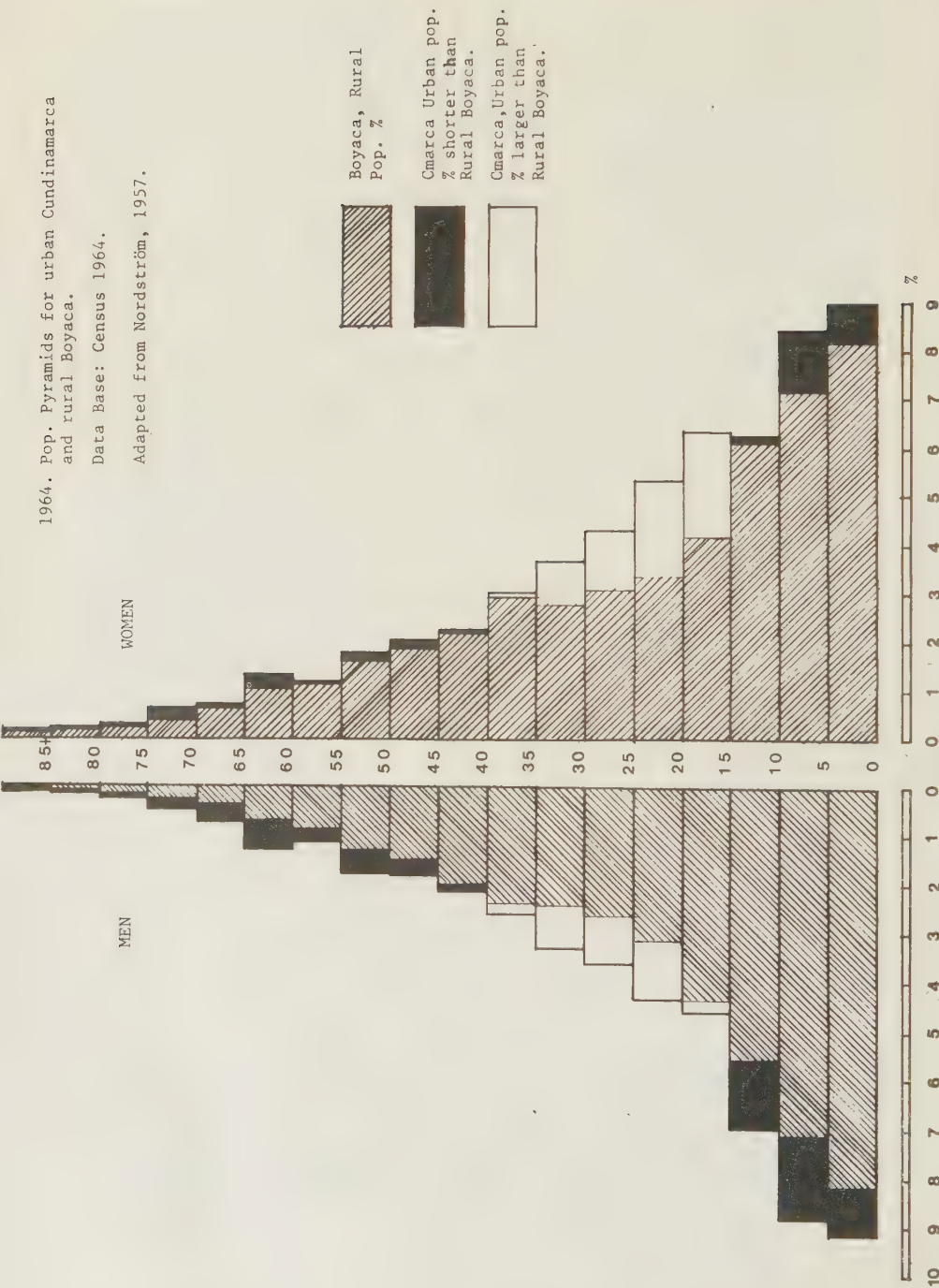


Diagram 2

Pop. Pyramids for Bogotá City and Juan XXIII Slum Area in the city 1964. Percentages.

Data Source: Ramiro Cardona: "Migración, Urbanización Y Marginalidad".

AS. Col. Fac. Medicina 1968.

Adapted from Nordström, 1957.

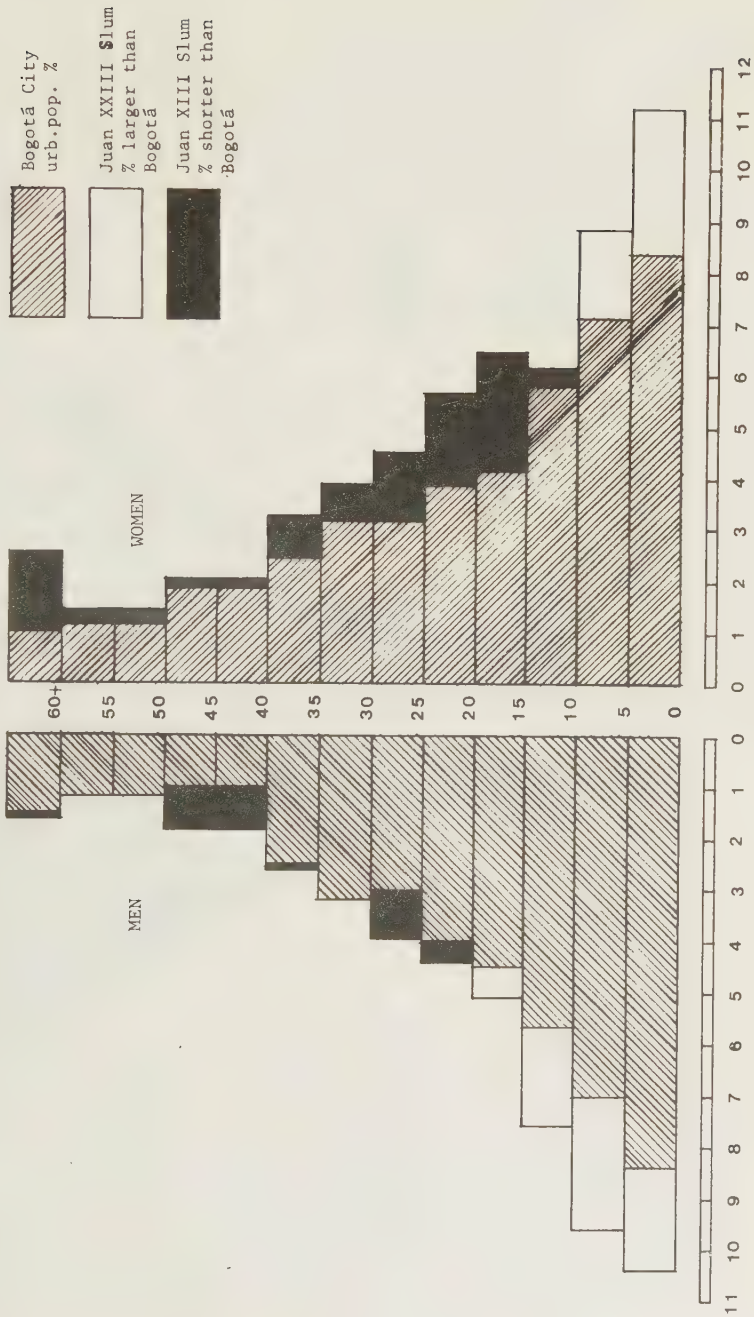


Diagram 3.

Pop. Pyramids for Bogotá City and Policarpa Slum Area in the City, in 1964. Percentage.

Data Source: Ramiro Cardona. Migración Urbanización y Marginalidad.

As.Col. Fac. Medicina 1968.

Adapted from Nordström, 1957.



The two slum areas to be studied are Juan 23, and Policarpa Salavarrieta, both having arisen through invasion of lands in downtown Bogotá. The most important points to be noticed are:

1. The much larger concentration of children in the slum areas, probably because the families are much younger in these areas and also because they are migrants from the countryside where birth rates are much higher.
2. A much higher concentration of working age women than of men, is found for the city as a whole.
3. A larger concentration of women older than 60 years which is observed for the city as a whole, is absent in the case of the slum areas.
4. The population becomes very thin in the slum areas in the cohorts over 40 years of age.
5. The slum areas resemble in their population composition the rural areas in the dominance of the younger age brackets; they also resemble the countryside in their large deficit of women with respect to the urban areas. It is just because many of the women who move to the cities do not live in slums but as maids in private homes.

The pyramid for women in the slums ascends in an escalonated way up to 40 years of age. While the structure for men becomes abruptly stepped up in one of the slum areas from the 20 to 40 years brackets, and in the two areas between 40 and 60 years of age. The pyramids for men and women both in slum areas and in the city become very stepped up after the 40 years bracket.

6. Several studies have indicated that the higher emigration rates of women towards the urban areas than of men can be explained by the fact that it is easier for women to get jobs there. The kind of jobs indicated are menial ones, with low payment and hard tasks.

If women have their migration strongholds in the urban areas, men have theirs in the frontier resource regions. The available statistics demonstrate that men outnumber women in the scarcely populated regions to the east of the Andes and in other parts of the country. Shultz remarked that if only the frontier regions to the east of the Andes were considered, the relation of men to women would increase to 125 to 100.¹⁾ This must be due to the fact that most jobs found in those regions in agriculture and cattle raising have customarily been done by men. See table 7.

Thus, although migration from the rural areas is very high both for men and women, there is a tendency to become segregated by sex with respect to places of destination. A higher number of women travel to the urban areas, and a higher of men to the frontier agricultural regions.

1) Shultz, T.P., 1969, p. 36.

Table 7

Number of Men for Each Hundred Women by Region in Colombia, 1964.

Region	Total Municipality	Cabeceras (Urban)	Other Areas (Rural)
Established Departments from which municipal sample drawn	96.8	88.2	107.4
of which Bogota D.E. (Metropolitan Area)	87.5	87.3	95.1
Frontier regions not represented in municipal sample	105.5	94.2	111.1
All of Colombia	97.1	88.4	107.6

Source: Shultz, T.P., 1969, p. 37.

the needs of the rural population as well as the migrants with respect to education are larger than one could deduct from the table we will see on next page.

One study about Colombia reports: "Types of elementary education are a five-year urban program, a four-year rural program with separate schools for boys and girls, and a two-year 'alternate' rural program in which boys and girls attend on alternate days. A few rural schools in some of the Departamentos have a five-year program. The two-year alternate rural schools have 188 days of school attendance in the academic year. Because of the alternate attendance, however, boys and girls attend only 94 days, respectively. Since each group of boys and girls is further divided into first- and second-year courses, each course receives instruction for only 47 days, the equivalent of 282 class hours. It is the system operating in 8,760 of 11,861 rural public schools."¹⁾

Another study says: "In 1966 AID determined that of the 23,000 primary schools in Colombia, only 20 per cent offered a full circle of five grades even though primary education of five grades is obligatory under the Colombian Constitution; 12,500 of the schools or about 54 per cent offered two grades or less. The shortage of classrooms is more acute in rural areas where only about 1 per cent of the school age population completes five grades."

"...AID estimated that there was a shortage of 25,000 primary classrooms in Colombia in 1966, and has estimated a shortage of 48,500 primary classrooms in Colombia by 1973."²⁾

1) U.S. Army, 1964.

2) U.S. Government, 1969, p. 124.

3.2 Educational Level of the Migrants

The greatest problem that the people coming to the urban areas find is that there are not any jobs for them. Yet another very important cause of the migrants not being able to find occupations in the urban areas is that they are mostly illiterates when they arrive.

Educational possibilities in the countryside are almost non-existent, and the only experience the migrants have, rudimentary agricultural practice is of no good in the urban areas.

The number of illiterates in every dept and their percentage with respect to the rural population of them are shown in Table 8 and on Map 7. Literate rates variate widely among the depts and cover between 30 and 65 per cent of the rural population.

Interestingly, in the depts where regional urban centers are located for instance, Cundinamarca, Antioquia, Valle, the illiterate rates are the lowest for the country. The influence of the large urban areas upon the hinterland seems to be a decisive factor with relation to the incoming and spreading of modernization processes in the countryside.¹⁾

These findings are the more remarkable if we notice that it is very often the old and the most ignorant who are left behind in the countryside by the migration flows and that the depts in the coffee triangle have had the largest rural to urban migration in the period 1951-1964. As a consequence of the migration these regions should have the highest percentages of illiterates or at least equally high as other depts.

The remaining depts in the Andean region occupy an intermediary position with respect to illiterates.

The Caribbean region is - with the exception of Atlántico, where Barranquilla, the regional urban area is located - the most backward area with respect to the variable under study.

However, data presented by the official statistics must be taken with care. Some other evidence available talks for the rural population being in worse shape than one could imagine to succeed in the urban areas. Probably

1) We refer here to the case of the diffusion of modernization processes in an spontaneous, undirected way. Otherwise one could think of modernization processes becoming spread even a long way away from the urban areas through a system of planned intervention.

Table 8

Rural Illiterates in the Departamentos^{x)}

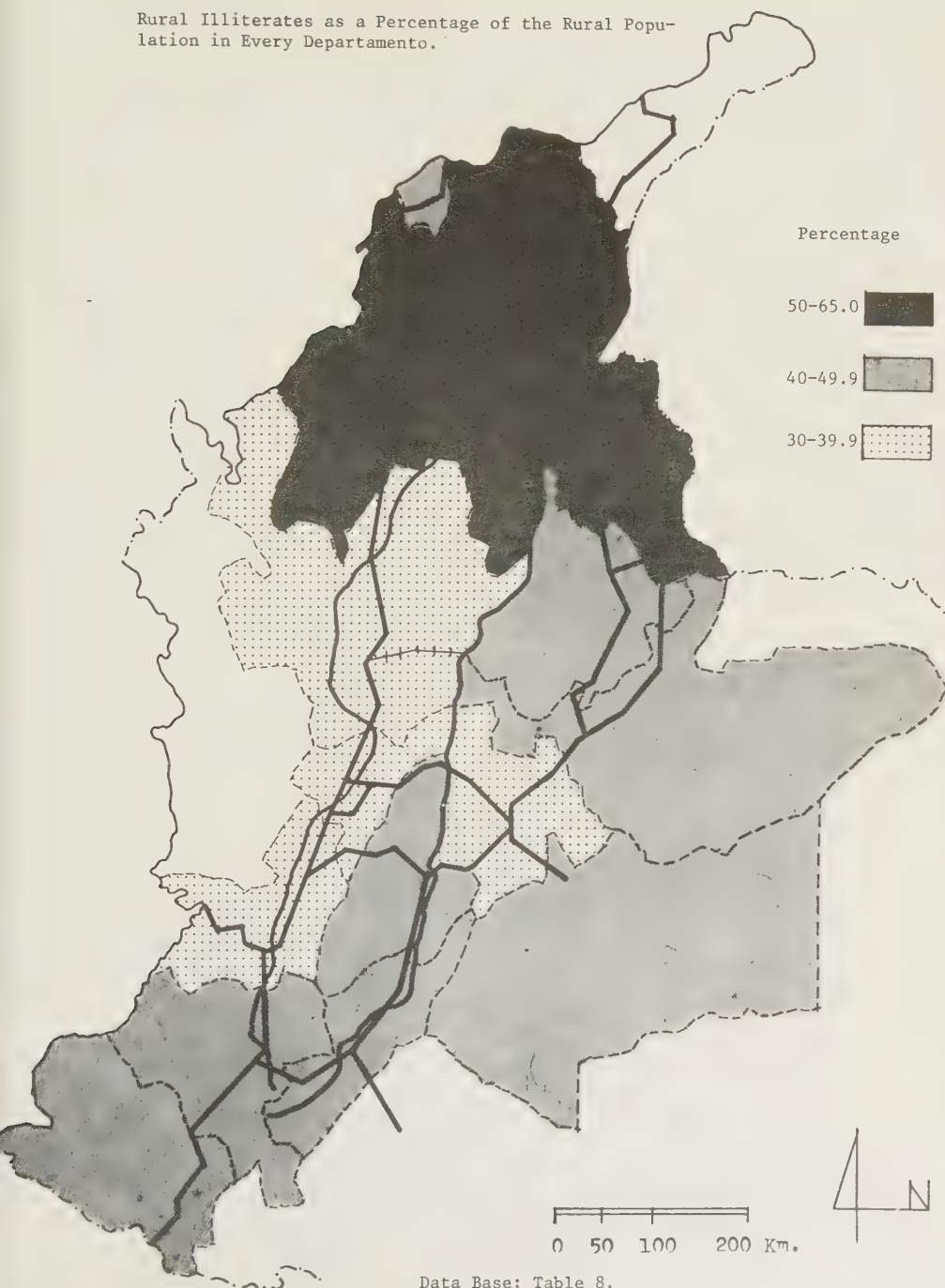
<u>Departamentos</u>	<u>Number</u>	<u>% of Rural Pop</u>
Caldas	154,406	31.5
Valle	131,459	34.5
Cundinamarca	220,960	35.0
Antioquia	315,065	37.5
Meta	26,382	40.0
Huila	77,152	44.0
Tolima	159,934	44.5
Boyacá	270,104	45.0
Nariño	178,402	47.5
Santander	198,628	48.0
Atlántico	22,975	48.0
Cauca	171,648	49.0
Norte Santander	102,165	51.0
Magdalena	182,253	54.0
Bolívar	213,441	61.0
Córdoba	190,920	65.0
Total	2,804,508	33.5

x) Threshold for Rural Areas, 1,500 inhabitants

Data Source: Census, 1964, p 74.

Map 7.

Rural Illiterates as a Percentage of the Rural Population in Every Departamento.



Data Base: Table 8.

The backwardness of the countryside is very large, if the existence of the most elementary facilities is looked at. The future for the uneducated population streaming to the urban areas cannot be very bright indeed, as a following of the conditions of their background.

4. Summary

The most important migration flows that take place in Colombia, have been summarized on Map 8 which shows the division of the country into populated regions, unsettled regions and frontier developing regions. And the dynamic migration flows that may exist between these regions.

1. The population of the country is very rapidly resettling around four large regional urban areas with the three most important ones - Bogotá, Medellín, Cali - forming a common strong growth region which includes all the rural and urban areas within their ranges, in the Andean area.

The fourth regional urban area - Barranquilla - is leading a smaller growth region on the Caribbean area.

The two different regions where the population is resettling are easily differentiated. Migration flows connecting the two regions are not strong and their direction is in both ways.

2. From the physical point of view the two growth regions are also easily singled out. The Caribbean region is composed of low flat lands of warm climate with agricultural tropical products.

The Andean region is composed of very difficult stepped mountains in all its extension. The climate and agricultural products of the region vary with the height over the sea level, mostly cool and cold in this case.

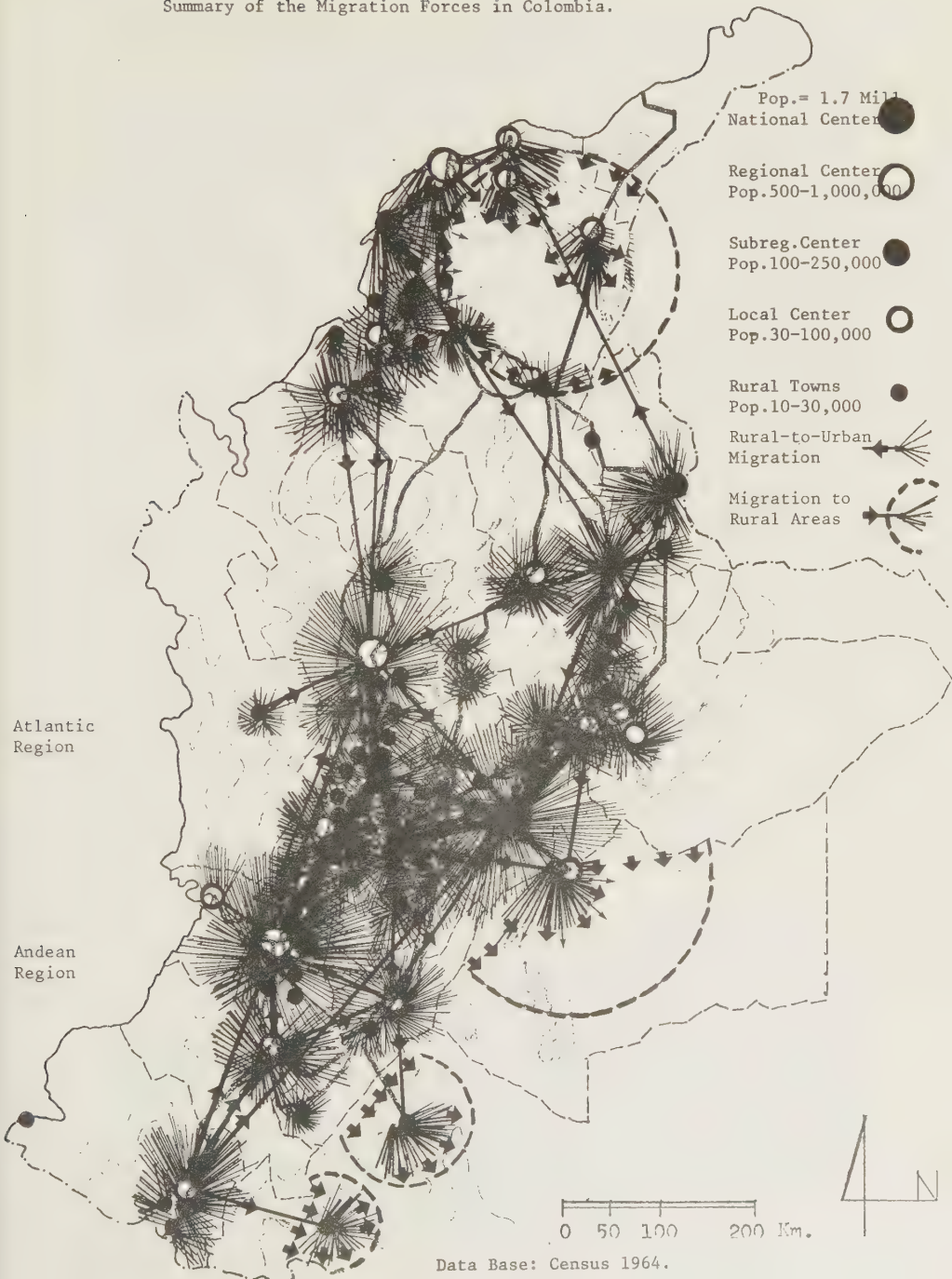
3. The regional urban areas in the Andean region contain within their common range the "coffee triangle", the most important agricultural area in the country. Development of the rural economy of this area has brought about the development of the urban areas that are located there. Three fourths of the industrial production of the country come from the coffee triangle urban areas.

4. The resettlement of the population is of very vast proportions. There are about 320,000 migrants per year in the country.

Of the migration flows, rural to urban migration is the most important one with about 230,000 people per year. There are also 65,000 interurban migrants, and about 25,000 interrural migrants.

Map 8.

Summary of the Migration Forces in Colombia.



5. Rural to urban migration has taken place at very accelerated rates in all the depts and all the urban areas have grown very fast. However, the largest migration flows as a proportion of the rural population of the depts, have been found in those depts - Cundinamarca, Valle, Atlántico - where three of the four largest cities of the country - Bogotá, Cali, Barranquilla - are located, plus Caldas and Tolima depts which are also in the coffee triangle in the middle of the common range field of the three regional cores.

6. Migration flows between the depts up to 1964 have coincided in direction towards those depts where rural to urban migration is strongest. The depts that have won migrants from other depts are Cundinamarca, Valle, Atlántico, which have regional cores; plus the frontier resource regions - Magdalena and Meta.

The regional urban areas are again the largest attraction centers, concentrating all flows of rural to urban and interdepartamental migrants.

7. There are three other large coinciding factors associated to the concentration of migration flows to the regional cores, which do not go unnoticed in this study:

7.1 There is a very high degree of concentration of industrial production, information, communications, education, finance, health, recreation and other services, to the large regional urban cores - Bogotá, Medellín, Cali, Barranquilla - which attract the largest migration flows.

7.2 The largest concentration of minifundia farms where the peasants barely survive, are located in the Andean region in neighbouring areas to the regional urban centers. See Chapter Six.

7.3 The largest rural to urban and interdepartamental migration flows in the country take place in the Andean region. They have as destination points the regional centers. The largest migratory flows have as starting points those areas where the largest concentrations of minifundia are located.

The effect of distance in determining from where the largest flows are coming to the regional cores, is reinforced by the fact that the largest problem areas - where the peasants live in too small plots - are located at short distances from the regional cores.

8. The two agricultural regions - Meta at the east of the Andes and Magdalena on the Caribbean coast have received migrants to the rural areas. They are frontier regions and have always been very difficult to obtain access to even if they were located in neighbouring areas to the regional urban cores. They have been slowly connected to those cores.

9. There is a very large concentration of the migration flows among

the people of working age, leaving large proportions of the very young and of the old in the rural areas.

In the case of the examined slum areas they appear with larger proportions of young people than other parts of the urban areas. Many women who work in private homes as servants, and do not live in the slums although they are also migrants to the urban areas, appear among the inhabitants of other parts of the cities. Women have larger proportions of migrants to the urban areas than men who are more concentrated among the migrants to the frontier resource regions.

10. The greatest problem for the migrants to the regional cores and other urban areas is unemployment, and the prospects for the future do not look any better. We will revise those problems in next chapter. This revision will give a meaning to the large observed migration flows. It will cast a light on the ~~great~~ problems in the background of the migrants and also in their future, if nothing is done.

PART THREE. THE MIGRANTS AND THE EMPLOYMENT PROBLEM

CHAPTER FIVE. THE UNEMPLOYMENT PROBLEM IN COLOMBIA.

Due to the importance, size, pervasiveness and serious effects of unemployment upon the most important activities of the country, we have singled out this problem in the non-spatial model in chapter one, to study in its light the important migration flows in Colombia. The most important questions to be examined in this chapter are:

1. Extent of the rural and urban unemployment problem in the past.
2. Estimates of the unemployment prospects for the country up to the year 1985.
3. Analysis of the capacity of labour absorption that the modern industrial sector has.
4. Analysis of the wage level which is very low for a very large part of the labour force.
5. Analysis of the size of the active labour force in the different depts with respect to their population.

1. The Unemployment Problem in Colombia

The model of migration in chapter one has shown the close connection between the unemployment problem and the migratory flows in Colombia.

Unemployment is the motor driving the majority of the migrants to a few large cities with the hope of making their economic situation somewhat better. The problems of unemployment in the countryside are too great. That the economic situation is not much better in the urban areas where the migrants are concentrated, does not seem to deterre them from continuing streaming to those areas.

This chapter is not an important appendix to an analysis of migration flows, but the very central point around which the directions of the migration flows, their size and their speed are taking form.

The very special problems of unemployment the country has, have very specific effects upon migration. Migration does not take place from areas of unemployment towards areas of employment, but from rural and urban areas of wide unemployment towards areas of regional importance, where there is also wide unemployment and only opportunities for occasional jobs and menial ones.

Table 1

The Extent of Urban Work Opportunities, 1967 (Percentage of active urban labour force)

	<u>Total</u>	<u>Males</u>	<u>Females</u>
1 <u>Open Unemployment</u> - persons without work and seeking it	14	12	19
2 <u>Disguised Unemployment</u> - persons without work and who would probably seek it if unemployment were much lower	(7) ^c	10	n.a. ^b
3 <u>Open Underemployment</u> ^a - persons working less than 32 hours per week and seeking to work longer	2	2	1
4 <u>Disguised Underemployment</u> ^a - persons working less than 32 hours per week, and who would probably seek longer hours if the opportunity were available	3	2	4
Total ^d	(25) ^c	25	(25) ^c

^a The proportion of the labour force working less than 32 hours a week is larger than this figure which is obtained by expressing the number of hours of underemployment in units of 48 hours (i.e. in its full-time equivalent) before the percentage is worked out.

^b No estimate possible but probably substantial.

^c Incomplete total: see footnote b.

^d Totals may differ from the sums of items because of rounding. This applies to all tables.

Source: ILO 1970, p. 15.

1.1 The Unemployment and Poverty Problem

According to the important study of Colombia by the ILO which was done in 1970, no less than 25 per cent of the urban labour force was unemployed or underemployed.

The very serious situation of the urban poor, especially the situation of those migrants from the countryside was noticed this way:

"... at a conservative estimate, half a million Colombians, out of an active labour force of some three million, are seeking job but unable to find it. Probably as many again would like to work, but are not currently looking for it, having given up in frustration or having not even started to look with any seriousness, deterred by the knowledge that their chance of finding a job is slim. In the countryside, open unemployment is less common, but hundreds of thousands work for such low wages, or earn so little on their own holdings because they are so small, that they must be considered 'underemployed'".¹⁾

Percentages of urban unemployment and underemployment are shown in Table 1. About 1.5 million people out of a labour force of 6.5 million were estimated to be unemployed.

ILO estimates of rural unemployment included less than 10 per cent of the rural labour force,²⁾ in spite of their affirmation in the last citation that

"in countryside, open unemployment is less common, but hundreds of thousands work for such low wages, or earn so little on their own holdings because they are so small, that they must be considered 'underemployed'".

1) ILO, 1970, p. 10.

2) Ibid., p. 41.

Table 2 shows the ILO estimates for employment and unemployment for the whole country in 1970.

Table 2

Estimates by ILO on Employment and Unemployment in 1970.¹⁾

Employment in Agriculture		2,550,000
Employment Outside Agriculture		2,500,000
mining, modern manufacturing, public utilities, transport	590,000	
construction, handicraft manu- facturing, catering and perso- nal services	1,350,000	
banking, insurance, public adm. other services	560,000	
Employment Total		5,050,000
Active Labour Force		6,480,000
Unemployed		1,430,000
Unemployment Rate for the Country	21 %	

1.2 Unemployment and Underemployment

The estimates for disguised unemployment and for open and disguised underemployment shown in Table 1, were about 12 per cent of the active urban labour force. Open urban unemployment was estimated at 14 per cent.

As said before, open unemployment in the rural areas was put by the ILO at less than 10 per cent. No estimates were made of rural seasonal unemployment and rural open and disguised underemployment. In Colombia, there are not any available statistics on the extent of the rural problem. We are going to estimate rural unemployment in a later section of this chapter by counting the number of peasants who work on farms that are considered too small to make a minimum living out of them in Colombia. Although in reality these large numbers of peasants should be considered underemployed, the effects of living in too small plots can be equalized to open unemployment.

The fact that the unemployed peasants technically should be considered as underemployed does not mean that they work less than 32 hours per week. In fact for many poor peasants their labour inputs in the very small plots

1) Ibid., Appendix 2, p. 4.

are more than 60 hours per week.

The underemployed peasants are compared to unemployed ones. The comparison can not be so straightforward as it seems. In their case, underemployment - or the act of working in too small plots - provides the peasants with a minimum of products from the land which nevertheless fill their stomachs. We find in Table 11 in next chapter that the smallest farm types have more than 10 times higher productivity per areal than the largest ones, due undoubtedly to the very high labour inputs of the underemployed who live in minifundia farms.

The problem becomes most acute when the underemployed from the countryside become concentrated in a few urban areas and go into open continuous unemployment. That is why it is so important to learn about rural to urban migration in Colombia. Not just because of the importance of learning about the dynamics of the migration flows, but of the great problems of unemployment - not so clear to visualize - that the migration flows create.

1.3 Unemployment Rates Among Women

Although women appear with equally large total unemployment rates in the urban areas as men, their real situation appears not at all clear in Table 1. It does not show the fact that women are tremendously underrepresented in the participation rates of the active labour force. This can be clearly shown in Table 3.

Table 3

Past and Projected Rates of Labour Force Participation

Age Groups	Males				Females			
	1951	1965	1970	1985	1951	1965	1970	1985
15-19	85	72	70	65	24	25	25	29
20-24	95	91	91	89	24	26	27	32
25-34	97	97	96	95	20	21	22	24
35-44	98	97	97	97	19	20	21	23
45-54	97	96	95	95	17	19	20	22
55-64	92	89	89	86	14	15	16	16
65 and over	45	58	55	4	10	9	8	7

Sources: 1951: Census data (not quite comparable with other figures.)
 1965 CEDE, Proyecciones de la Población Colombiana
 and Económicamente Activa (1965-1985), Bogotá, July 1969.
 1970:
 1985: CEDE study specially prepared for the mission.

Active labour force is meant to represent all persons who are working or who desire to work. But the true magnitude of the Colombian active labour force is not known, because many women doing hard house work are not included in it. Men outnumber, in the official statistics, women by about three times in almost all the age brackets.

1.4 Urban Poverty

Migrants in the urban areas sometimes get jobs. This is not at all a guarantee that their economic situation is secure, not even while they are employed. Most of the migrants can only try the lowest paid jobs, and many of the jobs are so. See table 4.

Table 4¹⁾

The Extent of Extreme Urban Poverty, 1967
(Percentage of the active urban labour force)

	Total	Males	Females
Unemployed - open	14	12	19
- disguised	(7) ^b	10	n.a. ^a
Occupied but with incomes below 200 pesos monthly ^c	12	6	24
<u>Total - all with incomes below 200 pesos monthly</u>	(33) ^b	28	(44) ^b

There is also an explanation of this table, which also comes from ILO:

"Purely in order to indicate the magnitude of urban poverty we show ... estimates for 1967 of the proportion of the labour force with incomes of less than 200 pesos monthly, a daily equivalent of less than 8 pesos (or about 50 cents US), assuming employment of twenty-six days a month. (Taking this particular level does not by any means imply that 200 pesos is considered to have been, even in 1967, an adequate income for a single person, let alone a family ... the figures show that a third of the urban labour force received less than 200 pesos a month (indeed more than half, less than 400 pesos). The hard core was the open unemployed, with no earnings at all."

1) Ibid., p. 18.

From the table and from the comments by the ILO it becomes evident that more than half of the active urban labour force receives less than 1 US dollar per day. When this money is to be distributed among five or six members in a family, the problem is very large.

1.5 Industrial Labour Absorption

A last factor which has relation to the great urban unemployment rates is the very limited capacity of the industrial sector to absorb new labour force, in spite of rapid increases in domestic output and productivity.

Between 1951-1964 the domestic output of the country rose by 5 per cent annually (3.5 per cent in agriculture) and productivity increased by over 2.5 per cent per man-year.¹⁾

Modern industry, due to the highly automated technology being imported, grew in output at a rate of 7.5 per cent per year in the period 1957-1965, distributed into different growth rates by type of industry.²⁾

- | | |
|-----------------------------------|--------|
| 1. Consumption goods industries, | 6.0 % |
| 2. Intermediate goods industries, | 8.5 % |
| 3. Investment goods industries, | 10.5 % |

However, in spite of the high growth rates the manufacturing sector was experiencing, or better, due to it, this sector did not absorb more than about 10,000 new workers every year of the 200,000 by which the active labour force was growing every year.³⁾ From 1957 to 1961 the modern industrial sector provided 11,000 jobs per year, and from 1962 to 1966 it provided 7,000 per year.⁴⁾

The total number of industrial workers was no more than 310,000 in 1970. Their distribution by industrial sectors was:⁵⁾

- | | |
|-----------------------------------|---------|
| 1. Consumption goods industries, | 125,000 |
| 2. Intermediate goods industries, | 100,000 |
| 3. Investment goods industries, | 85,000 |

The agricultural sector on the other hand was estimated to absorb 30,000 new workers every year.⁶⁾

1) Ibid., p. 29.

2) Ibid., p. 97.

3) Ibid., p. 30.

4) Ibid., p. 102.

5) Ibid., p. 98.

6) Ibid., p. 4 Appendix 2.

2. Estimates of Rural and Urban Unemployment for the Period 1970-1985.

This section contains a reappraisal of the unemployment problem up to the year 1985. The estimates of total unemployment in the year 1970 that were shown in Table 2 of this chapter, are also to be revised. Those estimates by ILO were certainly understating the magnitude of rural unemployment. ILO gave unemployment rates for the urban areas well over 25 per cent of the active labour force, but less than 10 per cent for the rural areas.

Probably one of the main reasons for the ILO understatement of rural unemployment was their desire to show that the unemployment problem had somewhat "human" proportions, as it was the Colombian government who had ordered the ILO study, and an undisguised presentation would not be acceptable.

Yet the problem as shown by ILO was certainly serious: the country needed to create 5,000,000 new jobs up to 1985, if the goal was a 10 per cent unemployment in the country, (assuming that unemployment in the countryside at the present was less than 10 per cent).

It is necessary a reappraisal of rural unemployment including also as underemployed the active population working on farms too small to make a living out of them, 900,000 persons. It should be also included as underemployed all sharecroppers, who are 990,000 persons. Additionally, due to the low wages, the workers on farms, 180,000 persons, and the administrators of small farms who are 53,700 persons. See Table 8 in next chapter.

It could be argued that the workers and administrators of large farms should not be considered as underemployed as they are very necessary for the tasks on the farms where they work, even if they receive low wages. Taking them away from the list of rural unemployed would not change very much the picture we get: nearly 2,000,000 people in the countryside are unemployed. There were 2,650,000 active persons in the countryside and the number of those to be considered unemployed is 77 per cent of them. This very high rural unemployment largely contrast with the 10 per cent which had been indicated by the ILO.

It is possible to estimate optimistically that the rural unemployment rates are to be stable with respect to the rural population up to 1985. Yet, the number of the unemployed will vary, as the total rural population also varies.

The results of the analysis can be seen in Table 5. This table certainly provides very interesting cues to the real problems in the country by now, and very especially clarifies and explains the magnitude and direction of the rural to urban migration movements.

Table 5

Estimates for Employment and Unemployment in Colombia. 1970, 1975 and 1985.

	1970	1975	1975	1985	1985
Population in the Country	21,500,000	26,000,000	26,000,000	34,500,000	34,500,000
Active Labour Force	6,480,000	7,740,000	7,740,000	10,790,000	10,790,000
Labour Force Employed	3,108,000	3,840,000	3,530,000	5,770,000	5,090,000
Urban Labour Employed	2,500,000	3,120,000	2,850,000	4,210,000	3,750,000
Rural Labour Employed	608,000	720,000	680,000	1,560,000	1,340,000
Activity Rates	14.5 %	15.0 %	14.0 %	17.0 %	15.0 %
Unemployment	3,372,000	3,900,000	4,210,000	5,020,000	5,700,000
Rural Unemployment	2,320,000	2,300,000	2,300,000	2,100,000	2,100,000
Urban Unemployment	1,052,000	1,600,000	1,910,000	2,920,000	3,600,000
Unemployment Rates	52.0 %	50.5 %	54.5 %	46.5 %	53.0 %
Rural U. Rates	79.0 %	76.0 %	77.0 %	57.5 %	61.0 %
Urban U. Rates	30.0 %	34.0 %	40.0 %	41.0 %	49.0 %

Data Sources: ILO, Towards Full Employment, Appendix 2, p. 4,
and estimates by the author.

The table has been elaborated according to estimates by ILO with two alternatives of labour absorption for the years 1975 and 1985 based on future exports, capital inflows and terms of trade for the country. The most interesting findings in the table are:

1. Unemployment rates for the country as a whole were found to be as high as no other country to our knowledge, has now. Among the unemployed is half of the active labour force. This is twice as many as the study by the ILO would give for 1970. These very high rates are to be rather stable up to 1985. ILO contemplated unemployment rates for 1985 between 30 and 36 per cent. In our case they stay as high as between 46 and 53 per cent of the active labour force.

2. Rural unemployment rates were in 1970 more than twice as those for the urban areas. The number of the rural unemployed is also more than twice that of the urban areas. Unemployment is very high in the urban areas. Yet, it is even larger in the countryside. For the peasants to migrate from the countryside it may represent the opportunity to get occasional jobs in the urban areas.

3. Rural unemployment rates are expected to be much higher than urban rates in 1985. However, the number of the unemployed will be much higher in the urban areas. Due to the very rapid increases in the urban population through migration within these years, the unemployment problem is becoming concentrated to the urban areas. The urban unemployment made up 31 per cent of the unemployed of the country in 1970. 15 years later they will make up 63 per cent of all the unemployed.

4. The extremely low activity rates, the extremely high unemployment rates and the continuation of the problem that is expected, show the very deep crisis the country is going through. The fact that the unemployed are becoming concentrated to the urban areas, mainly due to the migration of the peasants, makes the problem more difficult to solve. It has been demonstrated the low capacity that the urban areas have for offering jobs to those arriving. There is nothing in the future that could indicate changes in this situation.

3. Active Labour Force in the Departamentos

It would have been very interesting to show the regional differentiation of the unemployed. However, there are no unemployment statistics on a regional basis in Colombia. There are a few statistics about unemployment in some of

the urban areas that cover open unemployment, but there is nothing that could be compared on a regional basis.

This section contains as a substitute some regional statistics about the active labour force in each departamento. The active labour force has been studied for the rural and urban areas and aggregated by depts. These statistics were elaborated for the Census of 1964. Included among the 5,000,000 in the active labour force are the unemployed in every dept. They are according to the official statistics only 5 per cent of the total labour force. There is a large difference with the 50 per cent unemployment rate we have estimated for the year 1970.

According to the official statistics 6.8 per cent of the urban labour force and 3 per cent of the rural are unemployed. According to the ILO statistics and our own estimates 79 per cent of the rural labour force and 30 per cent of the urban were to be considered unemployed in 1970.

In spite of the irreconcilable differences with our own estimates of unemployment we have decided to look at these statistics as the numbers of the active labour force to be revised are not affected by the very low estimated number of the unemployed. Employed and unemployed added together are the active labour force.

The active labour force as a percentage of the population in each dept are shown on Map 1. The rural and urban spatial distributions are shown on Maps 2 and 3.

It could be expected that the active labour force in the different depts would vary according to:

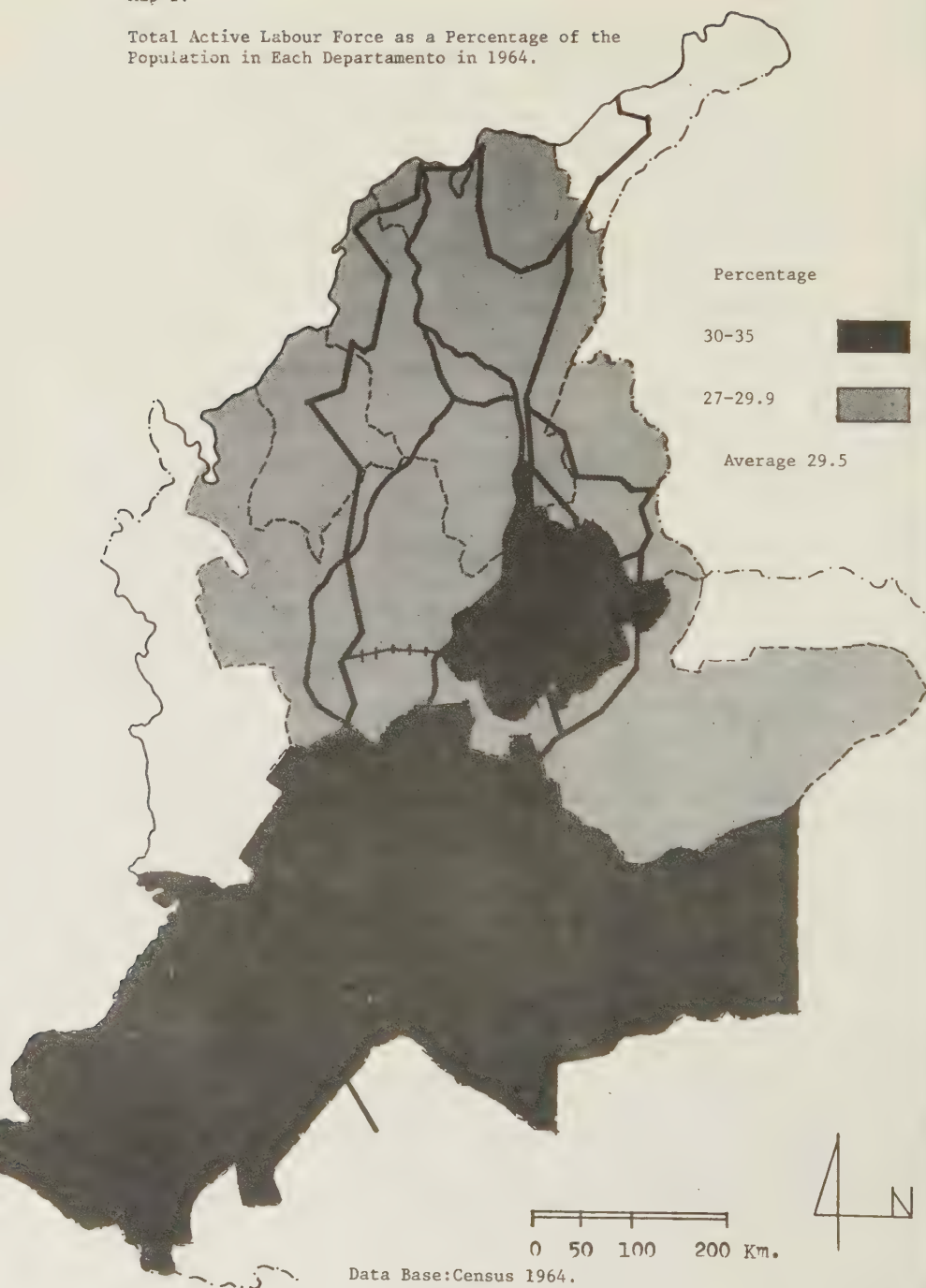
1. The importance of the urban areas located in each dept. It could be expected, for example, that the active labour force would be larger in those depts where the regional cores are located.

2. The importance of the depts with respect to the industrial production. It could be expected that in those depts where industry is concentrated, the active labour force would be larger, due to multiplier effects upon other production sectors, which would increase the active labour force. In the Colombian case there is a coincidence between the regions in points one and two.

3. The importance of the migration flows that have taken place between the depts. It could be expected that the depts that have had more immigration would have larger percentages of the population in the active labour force, as many of the migrants are young people of working age. Conversely, it would be expected that those depts with larger emigration flows would have less percentages of their population as active labour force.

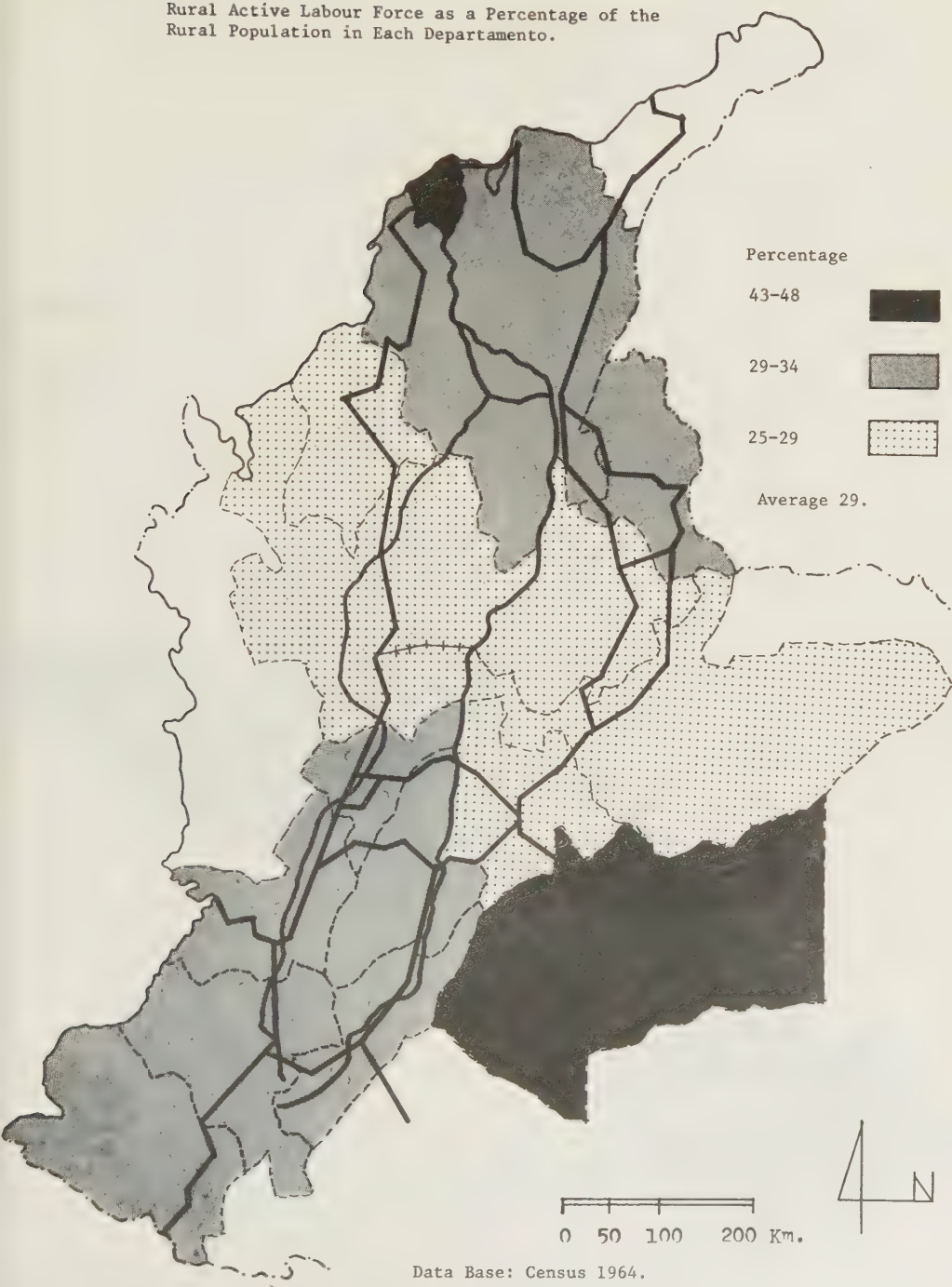
Map 1.

Total Active Labour Force as a Percentage of the Population in Each Departamento in 1964.



Map 2.

Rural Active Labour Force as a Percentage of the Rural Population in Each Departamento.



Map 3.

Urban Active Labour Force as a Percentage of the Urban Population in Each Departamento in 1964.

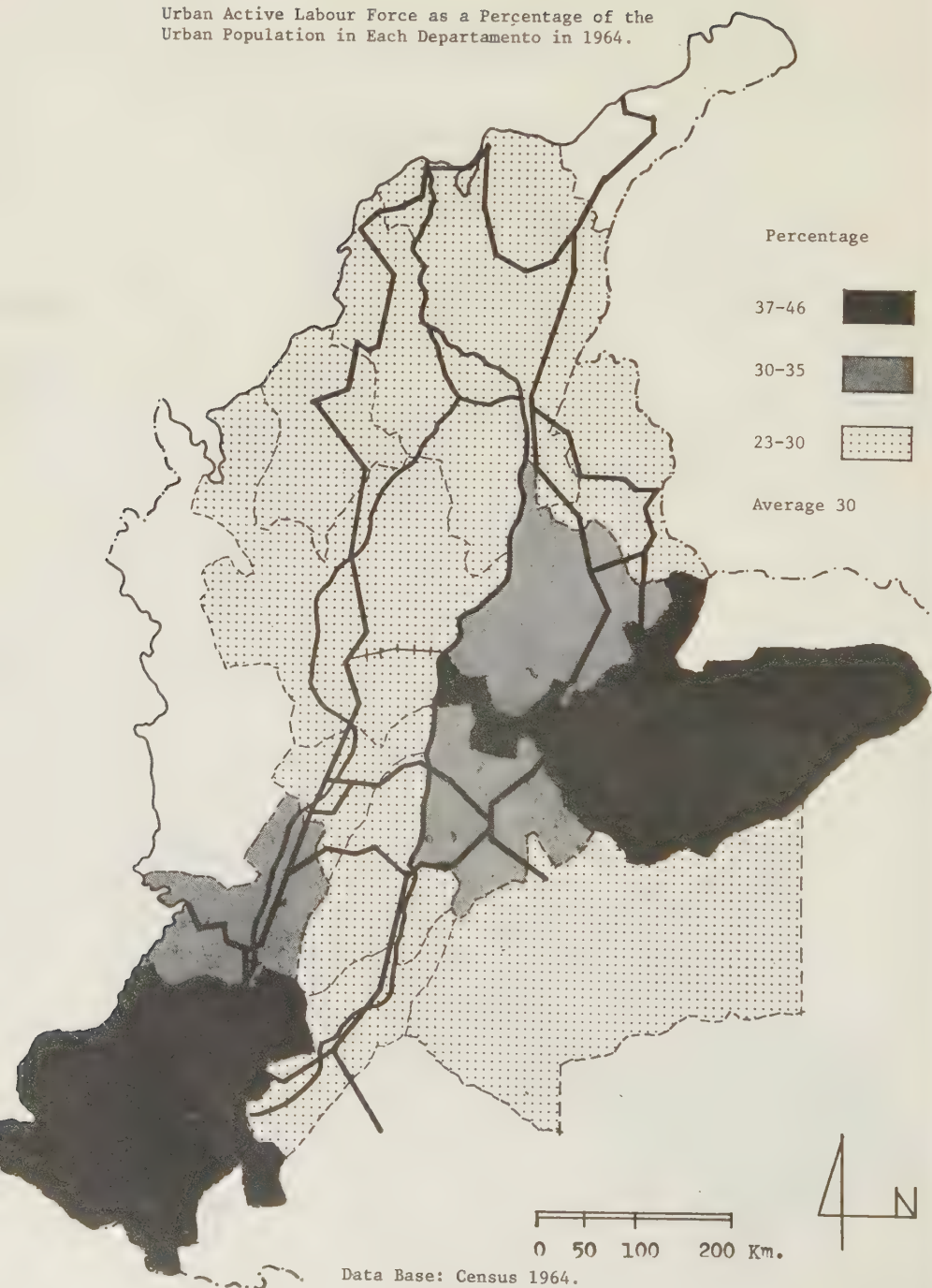


Table 6

Rural, Urban and Total Active Labour Force as a Percentage of the Rural, Urban and Total Population in Every Departamento in 1964.

Departamentos	Rural Percents	Urban Percents	Total Pop Percents
Antioquia	26.0	27.5	27.0
Atlántico	48.0	25.0	27.0
Bolívar	32.5	23.0	27.0
Boyacá	25.5	38.0	28.5
Caldas	33.0	24.5	28.0
Cauca	29.0	37.0	31.0
Córdoba	27.0	28.5	27.0
Cundinamarca	28.0	34.0	32.0
Huila	32.0	27.0	30.0
Magdalena	29.0	26.0	27.5
Meta	43.0	26.5	35.0
Nariño	29.0	46.0	34.0
Norte Santander	29.0	28.0	28.5
Santander	28.0	33.0	30.0
Tolima	32.0	28.0	30.0
Valle	34.0	29.5	30.0
Total	29.0	30.0	29.5

Source: Census 1964, p 124

None of the suppositions we had advanced was confirmed by the results of the analysis. Other things might be happening which changed the composition of the population in the depts:

1. It is a fact that along with the migrants of working ages coming to depts where regional urban cores are located, many people, mainly children, follow and in this way the percentage of the active labour force is kept down near the average for the country.

2. Industrial production concentrated in a very few depts attracts many job seekers, who are followed by their families. Therefore the averages for the active labour force are kept low.

3. That the regional urban cores do not appear to contribute to make the percentages of the active labour force higher with respect to the population of the depts where they are located, could be explained by the fact that the regional cores attract large numbers of migrants, who contribute to level the percentages.

4. On a regional basis it was found that the central and southern parts of the Andean region formed a continuous area with higher percentages than the average active labour force. The northern parts of the Andean region and the Caribbean formed another area - with the exception of Santander - where the active labour force percentages are lower than the average. See Map 1. The coffee triangle with its regional urban cores and high industrial concentration, and high concentration of migrants, does not appear as important in this analysis. Depts with high emigration and those with high immigration appear with the same active labour force percentages.

5. With respect to the rural active labour force, some central areas of the Andean region show lower percentages than the average. Among them appear Cundinamarca and Antioquia, the depts with the two largest urban areas - Bogotá and Medellín.

Especially high percentages appear in Atlántico - where Barranquilla, the regional core on the Caribbean is located - and in Meta, the frontier region at the east of the Andes. In the case of Atlántico it may be due to the fact that the hinterland of the regional core located there has a small rural population with job opportunities higher than the average for supplying goods to the urban area. In the case of Meta it may be due to the selective migration mostly of men in working ages for cattle grazing jobs, who push up the numbers of the active labour force.

6. With respect to the urban active labour force, all of the Caribbean region and some of the main parts of the Andean region have lower percentages than the average, including Atlántico and Antioquia where the regional

cores Barranquilla and Medellín are located.

The remaining depts with regional cores in the Andean area, Cundinamarca and Valle with Bogotá and Cali, appear with percentages not so much higher than the average.

The presence of the regional cores does not mean very much for the composition of the urban labour force.

Very interestingly, the group with the highest percentages of urban active labour force is composed by some of the most backward regions in the country, Nariño and Cauca at the south of the Andes and Boyacá neighbour to Cundinamarca where Bogotá is located. These are the less urbanized regions, with less industry and with large emigration flows. It seems as if the urban areas in the less developed regions, more often include people who have strong reasons, i.e., jobs, for being there.

4. Summary

The chapter on unemployment which conditions the migration flows in the Colombian case has given important results:

1. Unemployment affects deeply the Colombian society. There were about 3.4 million unemployed, out of a labour force of 6.5 million. Ten years from now the problem will affect 5-5.7 million people, out of a labour force of 10.8 million.

If the government wanted to launch a crash program for giving employment to, let us say, 90 per cent of the active labour force, having as timetable the year 1985, it would have to create about 7.7 new million jobs within the next ten years.

This is equal to the difference between the 3.1 million people employed in the year 1970, and the 10.8 million that will make part of the active labour force in 1985. This is 2.7 million more than the 5 million new jobs the ILO has estimated the country would need to create in the same period. As it is known, they understated the unemployment problem in the countryside, when making their estimates.

The task of creating 7.7 million new jobs seems to be unsurmountable. The number of new jobs needed sounds by itself unreal. It would be the same as to create each week, within ten years more than 14,000 new jobs. The findings of this section give a dimension to the circumstances under which the migration flows are taking place.

2. The number of the unemployed in the countryside, 2.3 million in 1970,

is more than twice the number in the urban areas. Through the continuation of the migration processes from the rural to the urban areas it is expected that in 1985, the number of the unemployed in the urban areas will be 3.6 million against the 2.1 expected for the countryside.

In absolute terms, unemployment is a widespread fact in the countryside. It is also so in the urban areas, but these areas represent the opportunity for occasional jobs and occasional access to services which are not found in the countryside. Four out of five rural workers were unemployed in 1970, against one out of three in the urban areas.

3. Interestingly, it was found a tendency towards the equalization of the active labour force viewed as a percentage of the population in each dept. Depts with higher concentration of the production of goods and services did not have higher percentages of the population in the active labour force.

4. Industry, in spite of very fast increases in production, was contributing with an unimportant share of the labour absorption in the country. The main cause is perhaps the character of high capital intensity of the production units that are imported from the industrialized countries. In those countries there are different relations between capital and labour than those present in Colombia.

5. More than half of the active labour force employed or unemployed was found to have incomes that could barely guarantee their subsistence. The hard competition for the few existent jobs permits the employers to sink the wage levels in a very impressive way.

6. Unemployment, open unemployment, was found to occupy only a fraction of urban employment problems. Disguised unemployment and open and disguised underemployment were found to be the largest parts of the problem. Open unemployment in the Colombian case seems to be only the tip of the iceberg.

In the case of the rural areas it has also been demonstrated that a consideration of the employment conditions in the small plots within minifundia farms, where the peasants work very hard without a minimum of results, give another very serious dimension to the problem of employment.

7. Employment conditions of women are quite obscure at this time. The scarce existing data shows that only a small fraction of women are considered in the active labour force, when compared to men. This is true at least for the cash paid type jobs outside the homes. Perhaps, if a new classification was done on the basis of counting all women with domestic tasks as employed, it would show higher activity rates for the country as a whole. Additionally women would also be found doing harder tasks than many men, at the same time as being unpaid.

8. Migration as a dynamic force, was found concealing the great problem which is created when the peasants leave their small plots where they have managed to subsist heretofore, and - contrary to their expectations - become spatially concentrated in slum areas in the large cities where open continuous unemployment - notice the difference - is the rule. The remedies to the created situation, due to their requirements of large size and complexity are in the Colombian case very hard to find.

CHAPTER SIX. THE LAND OWNERSHIP STRUCTURE AND RELATIONS TO THE
UNEMPLOYMENT PROBLEM.

The almost total coincidence between the land ownership structure and the problem of unemployment in the countryside has been shown in the model in Chapter One, in order to clarify the relations between migration flows and unemployment. We are going to test here that part of the model.

This chapter is aimed to examine the important problems in the countryside:

1. Land ownership structure.
2. Effects of the existing land reform programmes in Colombia.
3. The minifundia problem.
4. The latifundia problem.
5. New centers of rural settlement.
6. Extension and characteristics of the rural unemployment.
7. Effective and potential use of the agricultural land.
8. Analysis of the productivity according to the different farm sizes.

1. Land Ownership Structure

The Colombian land ownership structure is a very skewed one. The greatest parts of the land are in a few hands and unexploited, while the majority of the peasants compete for very small plots that are left over for them. The land ownership structure is the main determinant of the poverty and unemployment in which the majority of the peasants live. The land ownership structure by farm sizes is shown in Table 1. It is noticeable:

1. There are in the country 1.2 million farms which occupy an area of 27 million hectares.
2. 5.5 per cent of the landowners, with every large farms occupy 66 per cent of the agricultural land of the country. The largest farms have an average size of 7,000 hectares per unit. There were in 1960 766 farms of this type which occupied an area of 5.5 million hectares.
3. 62.6 per cent of the farms, those of the poor peasants, occupy only 4.5 per cent of the total farm area. There were 756,000 of them, and all were less than 5 hectares in size.

These are the extremes of the very unequal land ownership patterns that exist in the country. The statistics show that if there is an acute lack of land for many of the peasants, this is due to a very artificial situation.

A Lorentz Diagram with base on Table 1 has been elaborated to show the land concentration. Degree of concentration is indicated by the deviations of the curve from the straight line of even distribution. An index of con-

Table 1

Colombian Land Ownership by Farm Sizes, 1960.

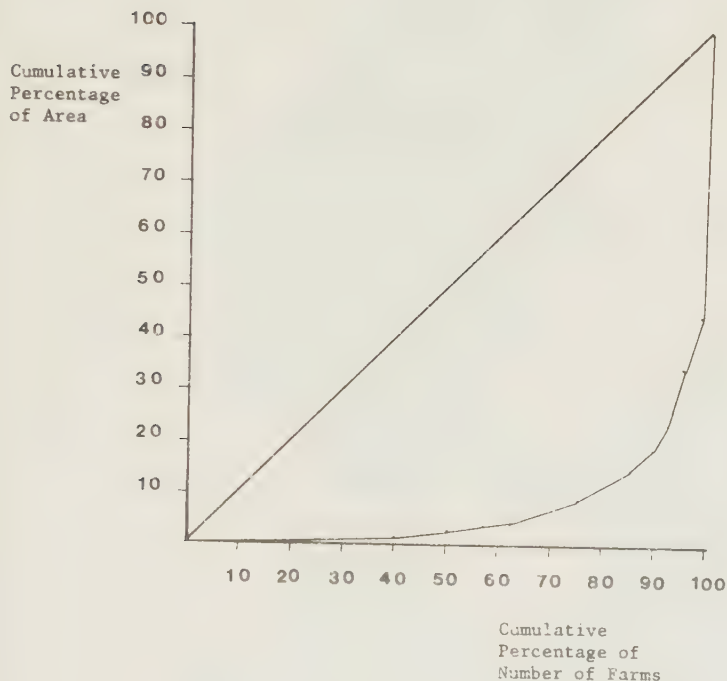
Farm Sizes			Number	%	Area	%
Less than 0.5 Has			165,652	13.7	38,344	0.14
Bet	.5 and	0.99 Has	132,419	10.9	93,649	0.34
Bet	1 and	1.99 Has	191,347	15.8	270,308	1.0
Bet	2 and	2.99 Has	117,005	9.7	275,656	1.0
Bet	3 and	3.99 Has	92,001	7.6	309,165	1.1
Bet	4 and	4.99 Has	58,181	4.8	251,854	0.9
Bet	5 and	9.99 Has	169,145	14.0	1,164,749	4.2
Bet	10 and	19.99 Has	114,231	9.4	1,572,076	5.7
Bet	20 and	29.99 Has	44,049	3.6	1,043,554	3.8
Bet	30 and	39.99 Has	26,500	2.2	890,100	3.2
Bet	40 and	49.99 Has	16,240	1.3	705,047	2.5
Bet	50 and	99.99 Has	39,990	3.3	2,680,471	9.8
Bet	100 and	199.99 Has	22,317	1.8	2,996,152	11.0
Bet	200 and	499.99 Has	13,693	1.1	3,994,319	15.0
Bet	500 and	999.99 Has	4,141	0.3	2,730,764	10.0
Bet	1,000 and	2,499.99 Has	1,975	0.2	2,808,210	10.2
More than 2,500 Has			786	0.1	5,513,409	20.2
Totals			<u>1,209,672</u>	100.00	<u>27,337,827</u>	100.00

Source: Anteo Quimbaya, 1967. Appendix 1.

Diagram 1.

Lorentz Diagram of Land Ownership Concentration in Colombia in 1960.

The cumulative proportion of the number of farms in the horizontal axis is plotted against the cumulative proportion of land area by farm sizes, in the vertical axis. The degree of concentration is indicated by deviations from the straight line of even distribution.



Concentration Index $K = 71.8^{1)}$

1) The concentration index formula is $K = \frac{1}{2} \sum_{i=1}^n |x_i - y_i|$

See, Haunerberg, David. Beskrivande Korologi. Studentlitteratur Lund, Sweden 1970, p. 68.

Data Base: Table 1.

centration has been calculated in this case. A value of 0 would indicate even distribution, and an index of 100 maximum concentration. The test gave a high value of 71.8. - See Diagram 1 -.

1.1 Land Ownership Concentration Indexes by Departamentos

There are rather wide differences in the levels of land ownership concentration in the different regions of the country. A concentration index has been elaborated for every departamento, of the same sort we have just seen for the country as a whole. The aim was to look for the spatial differentiation these indexes could provide. - See Table 2 and Map 1. -

Table 2

Land Ownership Concentration Indexes in 1960.

Departamentos	Indexes
Nariño	53.83
Norte Santander	55.59
Cauca	61.57
Caldas	62.35
Cundinamarca	63.15
Santander	63.28
Huila	64.27
Tolima	64.77
Valle Cauca	64.97
Córdoba	70.06
Magdalena	70.42
Atlántico	71.21
Antioquia	72.26
Bolívar	72.29
Boyacá	79.23
Meta	81.95
Country	71.80

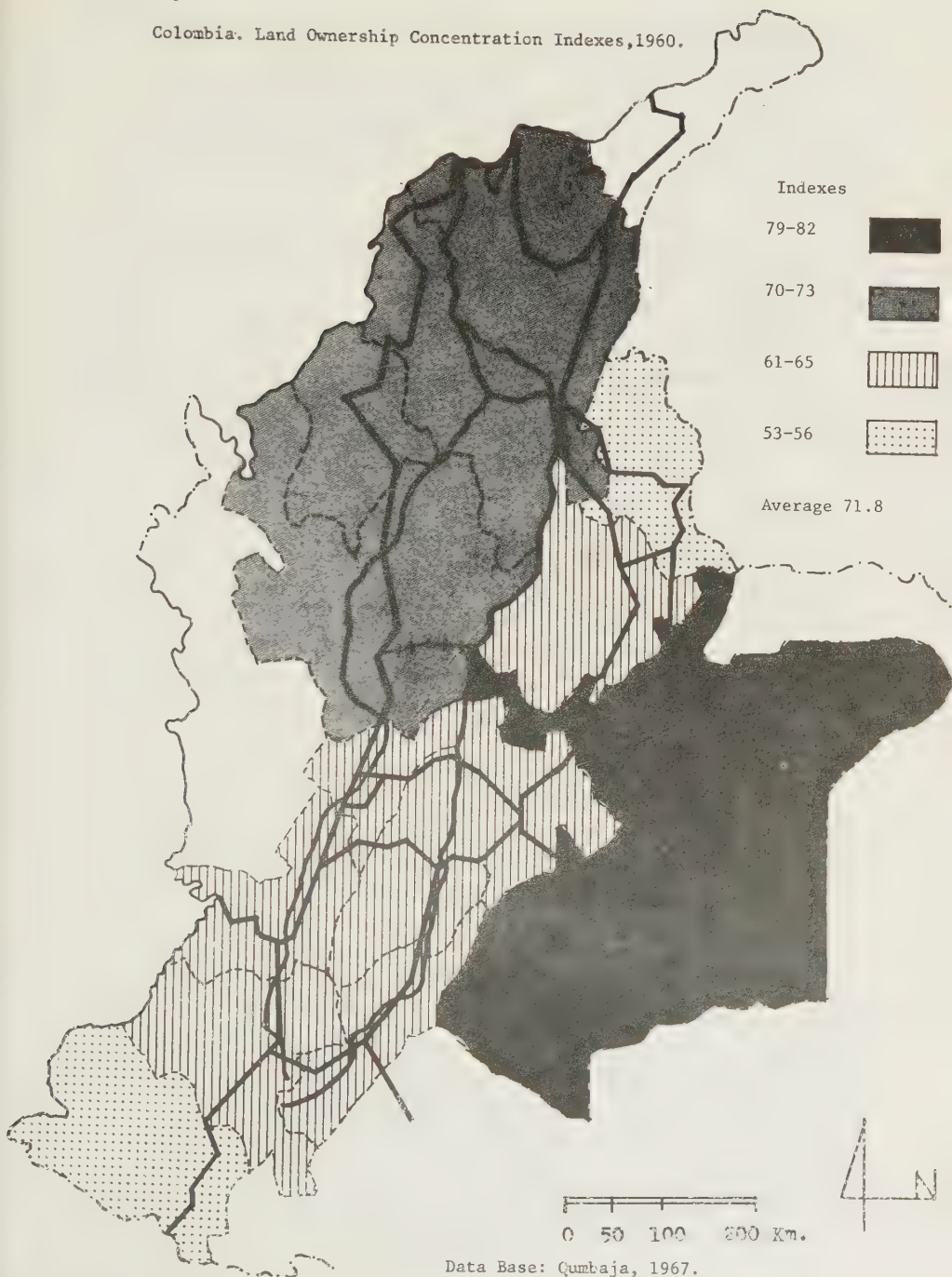
Data Base: Quimbaya, Anteo, 1967. Appendix 5-13.

As expected, there were very well defined patterns of regional concentration of the land to be found. The results indicate the existence of three different areas. They coincide in broad terms with the regional concentration of the population and with the physical characteristics of the land:

1. The Andean region, with the exceptions of Antioquia and Boyacá, has land concentration indexes below the average. They could be explained

Map 1.

Colombia. Land Ownership Concentration Indexes, 1960.



by the high concentration of rural population in this area. 80 per cent of the rural families are concentrated in the Andean region.

Low concentration indexes were found, independently of whether the depts had as a main city a regional, subregional or local urban area. The coffee triangle as such, was not found distinct with respect to the rest of the Andean region.

2. The low lands of the Caribbean coast and Antioquia in the Andean region, were all found with concentration indexes very near the average of 71.8 which is a very high one.

3. The Meta frontier region to the east of the Andes, and Boyacá in the Andean area - with most of the population in the Andes, and a great low density region to the east of the Andes - had concentration values between 79 and 82, the highest in the country. Most of the lands of these regions are very extensive plains for cattle grazing farms.

2. Effects of the Existing Land Reform Programmes.

Although the statistics are for 1960, it seems as if the picture of land ownership has not changed much in the years after.

A "Social Agrarian Reform" was started in the year 1961. This Agrarian Reform had, as its first objective, "to reform the social agrarian structure, by legal means, through actions directed to eliminate and to prevent the unequal land distribution. To change the minifundia type of farming, and to give land to those who do not own it."¹⁾

In spite of the great urgency of the reform and of the existence of the legal possibilities, no sizable land redistribution has, however, taken place. In 1969, eight years after the birth of the Agrarian Reform Programmes, only 6,358 families had been given land, an average of 900 families per year.²⁾ The number of families with too little or no land at all in 1960 was 1,051,000. The problem has not really been touched in spite of the existence of the Agrarian Reform Laws.

On the other hand, the number of peasants does not seem to have changed considerably since 1960, when the last agricultural census was done.³⁾ This is due to the large migration of young people from the rural areas, which neutralizes population growth.

1) Hector Tamayo, 1970, p. 4.

2) Ibid., p. 22.

3) A new agricultural census was started in 1970, but the results published until now are fragmentary and incomplete.

See Departamento Administrativo Nacional de Estadística, 1971.

Also could Peter and Brindley, Gunnar
 taken into consideration by the Colombian Government when studying
 rarian reform programmes.

2) Elinor James, R., 1974, p. 45.
 3) Also, Hyden, Goran, 1972.
 4) Nordström, Olof, 1975
 5) Also, Pizarro, Zygmunt, Growth Poles and
 the most important structures, objectives, programmes for development which
 exist in the country, as well as weights against all restrictions, opposing

- 3) few existing ones, to create a possibility for the population to be served.
 process is necessary to achieve a full effect from agrarian programmes.
 have strategic locations with respect to the communication systems. The
 Land subdivision programmes without other linkages can very hardly give any
 the population to live in very restricted places. It becomes important to
 results often are non-existent or of very low quality, there is a further need for
 The act of setting land reforms in a wider perspective permits the vi-
 sualization of important restrictions and opposing goals that may coexist
 good communication possibilities to the specialized centers.
 with the agrarian reform. There is a need for the population to have very
 the large urban areas. Additionally it permits the coming forward of a series of supplementary
 these services are concentrated to the most central parts of
 and complementary programmes that should be implemented in order to reinforce
 strictions exist with respect to the scale linkages of communication systems, ef-
 the effects of the agrarian reform programme.

With respect to the most specialized type of services where large fe-
 In the Colombian case, the setting of the land reform in wider pers-
 vices that a country can offer.
 natives would have necessarily implied a series of reforms in order to
 to their "collective" 2) This is with respect to the land, especially set-
 military units of the highland peasants. 2) This is with respect to the land, especially set-
 It would have many aspects to extend the services existing in the
 mission in 1965 found it necessary to send the rural
 of the central government are illuminated by the case of the Regional Com-
 urban areas to cover the countryside.

It would have also meant the implementation of a series of measures in
 behaviour against the interests of the villages in reaching the goals
 order to reinforce the existing structure of market places in towns and ci-
 ties so that the products from the countryside could easily be acquired
 of the country.
 Moreover a large series of institutions and large industries would
 time existing as such. Those goals are based on the rapid economic grow-
 the most immediate objectives of the central government to be able to con-
 and research institutions technical services to have application directly
 which most of the population seems to prefer to be able to work
 the provision of immediate needs as health, water and education services.
 the very great diversity of modes of production in the country.
 of income for the different types of agricultural production in the country.

All these facts have been ignored in the past.

in this case.
 The low effects of the Agrarian Reform law upon changing the owner-
 minimum of services to be given to the population are very clearly seen
 ship structure must be seen as a very serious event. A reform law of this
 great economic and organizational strains imposed on the country is a
 type is the most radical law a country can create to solve the inequalities
 case are not so.
 self-evident. The means to reach this goal and the results in the Tanzanian
 rural other laws which had an increase in the population in rural places
 a minimum for a considerable part of the population. Although the
 that were not fulfilled with the failure of the reform of the government
 application of the law is the Tanzanian one. (1)
 seems to be employing a very important opportunity
 the different services that the country can offer.
 lation to central places where they can constitute a minimum of demand for
 there is a powerful argument for an increased concentration of the popu-

Table 3

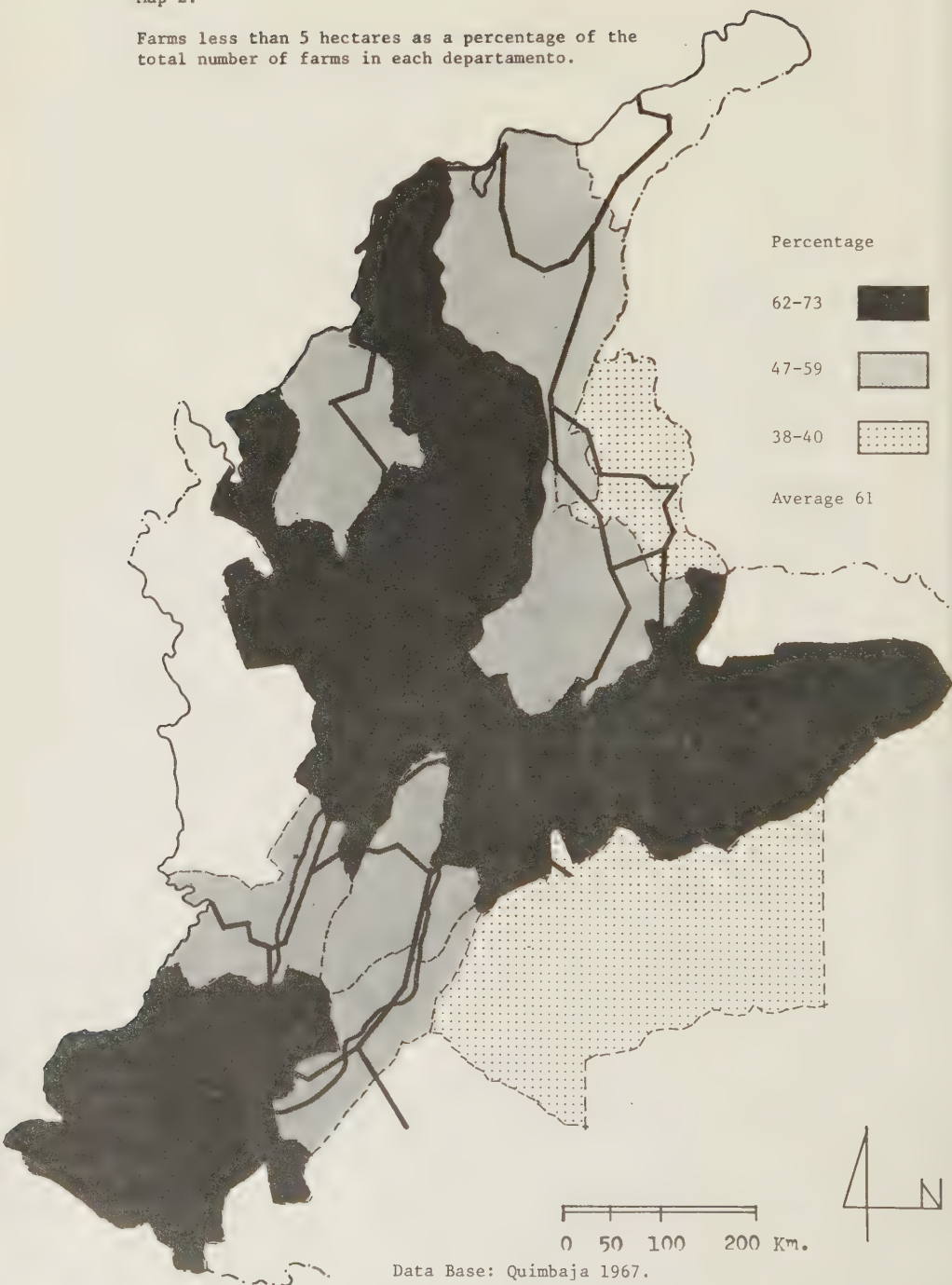
Colombia. Farms less than 5 hectares in 1960.

Departamentos	Number	Percent Farms in Depto	Percent Farms Less 5 Has
Boyacá	125,000	73.7	17.0
Antioquia	118,000	70.5	16.0
Cundinamarca	100,000	69.4	13.5
Nariño	60,500	67.3	8.0
Caldas	54,000	62.7	7.5
Santander	46,000	51.3	6.0
Bolívar	39,000	62.5	5.0
Cauca	37,400	63.1	5.0
Tolima	36,800	51.9	5.0
Magdalena	30,000	54.5	4.0
Córdoba	28,600	59.1	4.0
Valle Cauca	25,800	51.5	3.5
Huila	16,300	47.0	2.0
Norte Santander	15,000	38.5	2.0
Atlántico	7,500	63.2	1.0
Meta	6,200	39.5	1.0
Total	746,205	61.0	100.0

Data Source: Quimbaya, 1967. Appendix 5-13

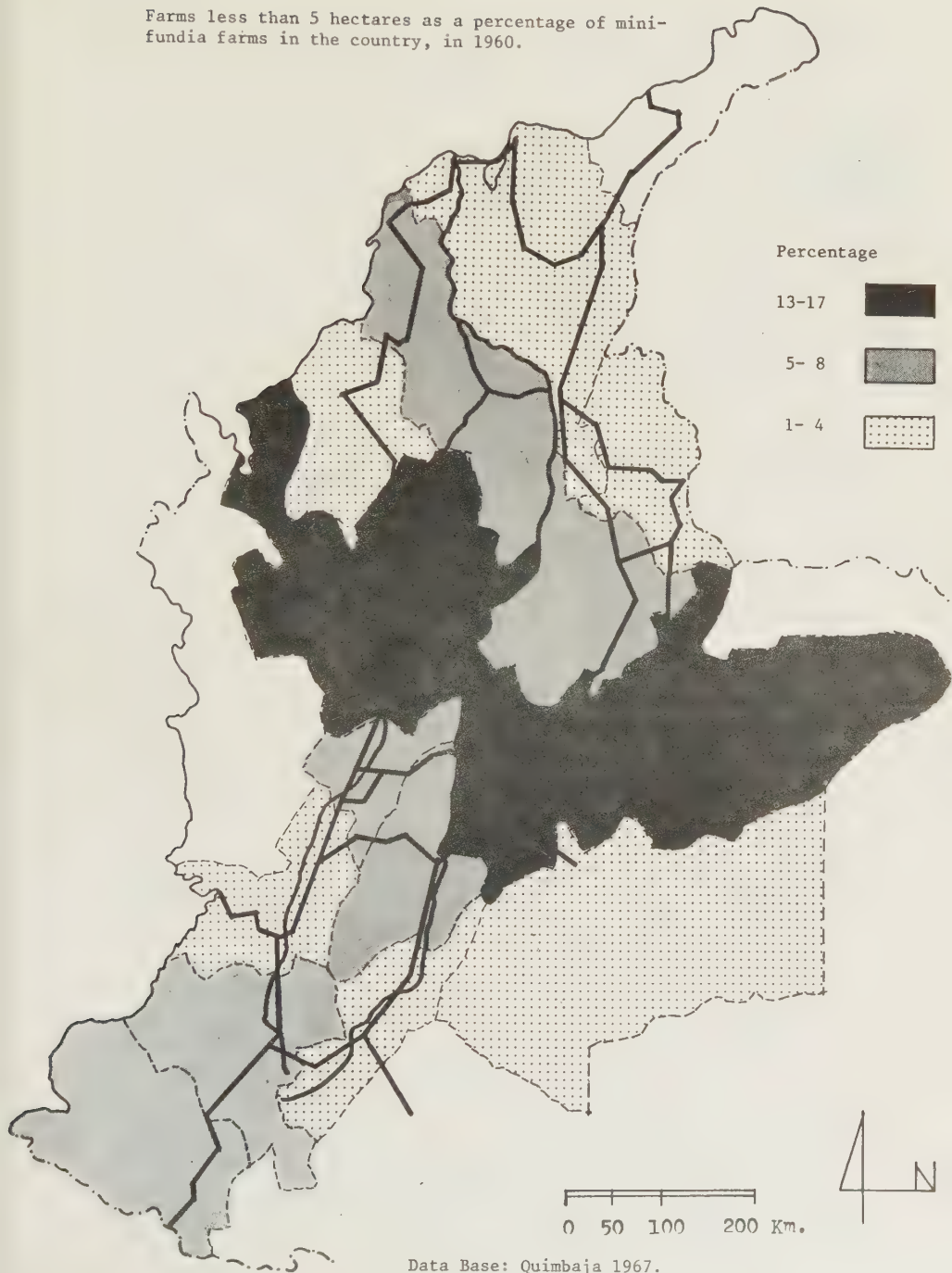
Map 2.

Farms less than 5 hectares as a percentage of the total number of farms in each departamento.



Map 3.

Farms less than 5 hectares as a percentage of mini-fundia farms in the country, in 1960.



One of the areas is around the regional urban centers in the region and the other one at the south of the region.

The largest of the minifundia concentration areas around the regional cores - Bogotá, Medellín, Cali - is precisely the same area from which the largest migratory flows to the large cities are taking place.

The heaviest of the concentrations is in the Boyacá - Santander area, where more than 240,000 farms are found. Boyacá is perhaps the dept with the largest number of such farms.

The question has been raised about the causes of the appearance of these concentrations of minifundia in just these areas of the country. We do not think there is an absolute answer but a series of cues long back in time that can explain this:

Table 4

Spatial Concentration of Farms Smaller than 3 Hectares.¹⁾

Subregions	Departamentos	Number of Farms
Alto Chicamocha	Boyacá y Santander	245,000
Pasto	Nariño	35,000
Ipiales	Nariño	46,000
Cáqueza	Cundinamarca	57,000
Sabana	Cundinamarca y Boyacá	134,000
Lengupa-Garagoa	Boyacá	27,500
Bolívar	Cauca y Nariño	57,000
Tequendama	Cundinamarca	18,000
Risaralda	Caldas	24,000
Batolito Antioqueño	Antioquia	47,000
Súarez	Boyacá y Santander	23,000
Quindío	Caldas y Valle	15,000
Tuluá	Valle	29,500
Saldaña	Tolima	14,000
Hoya del Atrato	Chocó y Antioquia	7,000
Sumapaz	Cmarca, Tolima, Huila	14,500
Alto Rionegro	Boyacá y Cundinamarca	12,000
Alto Magdalena	Huila	10,000
Ibagué	Tolima y Caldas	17,000
Total Approx		687,000

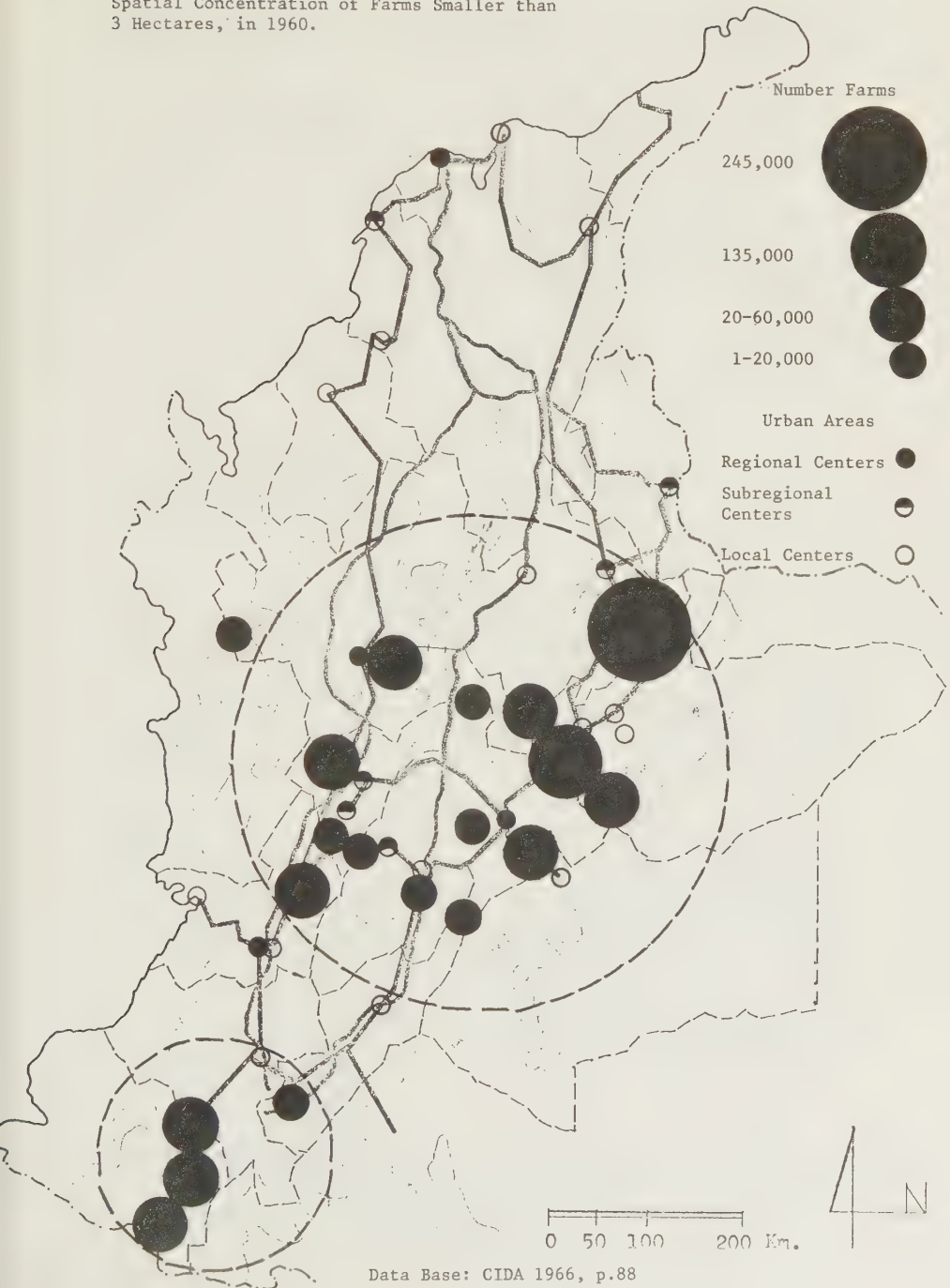
1. One of the most interesting facts to observe is that almost all of these concentrations are located in the cold and temperate areas of the country. These areas have climates that the Spaniards preferred, because they were like those of Spain and also because the sicknesses found in the warm climates could be avoided.

2. Additionally, a large part of the minifundia areas are located on the eastern side of the Andes, just in those territories which were densely

1) Source, CIDA, 1966, p. 88.

Map 4.

Spatial Concentration of Farms Smaller than
3 Hectares, in 1960.



populated by the natives.¹⁾ Most of the country was already settled, but the tribes in the areas we are studying were those who did not fight the Spaniards but became their slaves.

In other regions of the country the natives made war but were killed by the Spaniards. The lands without labour force were not worth anything, but the lands with the hard working natives were large assets for the conquerors. It is very possible that the descendants of those natives are the ones now occupying the minifundia concentrations. This is very probably the case in the minifundia concentrations in the south of the country, and those on the eastern side of the Andes, the largest of all.

Interestingly, there was also a very clear law of the Spanish King Felipe II from the sixteen century on the places to be chosen by the conquerors for new towns:

"We order that when it has been decided to settle a new province, or discovered a new one, the settlers shall notice that the lands are healthy, a good indication being that the natives reach high ages, and that the young people are well formed and with good colours; that the animals and cattle are healthy, good sized, that the products of the land are good, and that the lands are good for agricultural purposes; it must be noticed if there are poisoning and nocient things; if the sky is of good and happy constellation, clear, and benign; if the air is pure and light, without impediments and alterations; if the temperatures are without excess of warmth or cold (and were one to give in, then to prefer the cold temperatures); if there are grazing lands, forests for wood for cooking with, materials for building houses and buildings; if there is plenty of good drinking and irrigating waters; if there are indians and natives to teach the Sacred Evangelies to, and this being the first and main of our motives; if these qualities, or the main qualities are found together, then the settlers can start the new towns, in accordance with the laws in this book."²⁾

Most of the minifundia concentrations do not come from old existing towns, however, but from the repartitions of the natives into private reservoirs that the conquerors got for their private use in agricultural and other tasks, in payment for their jobs as conquerors. For example the indians around Bogotá, were divided thus, by Jimenez de Quesada, the Spanish founder of the city in the sixteen century:

1) G. Reichel-Dolmatoff, 1965.

2) Luis Eduardo Nieto, 1970, Vol. 1 p. 28.

"Capitán Juan de Céspedes, the repartitions of Ubaqué, Cáqueza and Subachoque, with more than 1,500 indians; Captain Antonio de Olalla, area of Bogotá with 800-1,000 indians, Captain Antonio Cardozo, area of Suba with 900-1,000 indians, etc."¹⁾

3. We believe that the largest concentration of minifundia at the north of the Andean region - Alto Chicamocha - with more than 200,000 families has less to do with descendants of the indians; we found only 500 of them in that area when Jimenez de Quesada divided the indians among the Conquerors. That area has more to do with the descendants of the Spaniards, late-comers and poor ones, who were devoted to agricultural tasks like tobacco cultivation.

The same descendants of the Spaniards are supposed to compose of the majority of the minifundia settlements on the west side of the Andes, west of the Magdalena river, in the coffee triangle. These minifundia concentrations are as new as the nineteenth century.²⁾

4. The Latifundia Problem

As it was shown at the beginning of this chapter, the largest farms of the country occupy 66 per cent of the farm area, although they are only 5.5 per cent of the total number of farms. This overconcentration of the land ownership is the latifundia problem.

Farms over 100 hectares as a percentage of the farm area of each dept can be seen on Map 5 and in Table 5. The heaviest concentrations are found in Boyacá³⁾ and Meta depts at the east of the Andes, in the low plains of the Caribbean coast and in Huila in the Andean region. The concentration is so high in these depts that in some cases the large farms occupy from 80 to 90 per cent of the farm area of the depts. In order to compare the spatial location and intermingling of the latifundia-minifundia problem we have drawn the large circles that show the minifundia areas from Map 4, also in the maps in this section on latifundia.

Farms over 100 hectares in each dept as a per cent of this type of farms in the country are shown on Map 6. The largest percentages are found in very large depts in low lands to the east of the Andes and also on the

1) Lievano Aguirre. 1964, p. 40.

2) Belisario Betancur. 1967.

3) Boyacá is the dept with the highest concentration of minifundia and at the same time appears with one of the highest concentrations of latifundia. Its minifundia areas are on the Andes and its latifundia areas east of the Andes in the frontier region.

Table 5

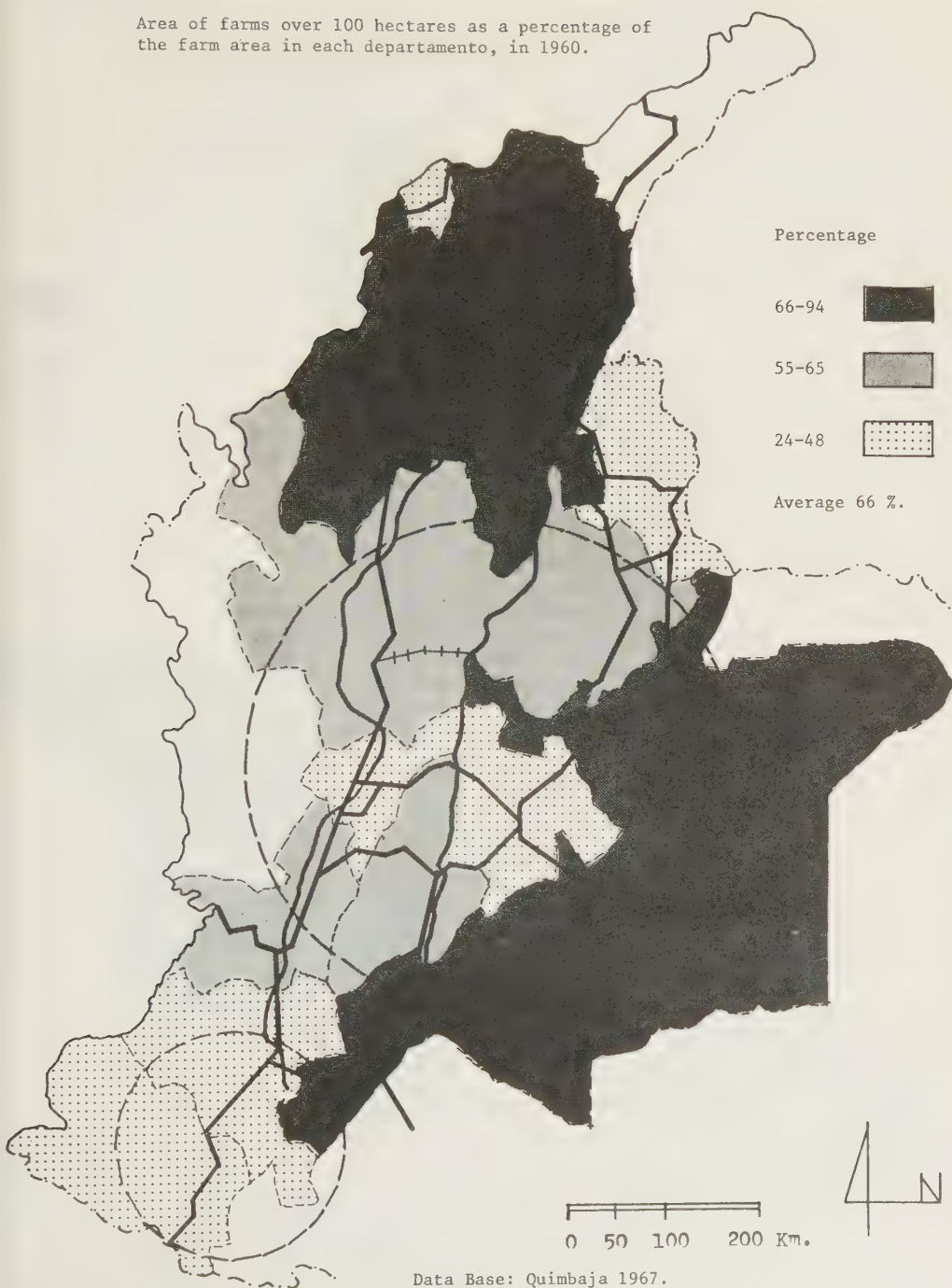
Colombia. Farms Over 100 Hectares by Departamentos.

Departamentos	Area in Large Farms	Area as a % of Total Farm Area in Every Departamento	Area as a % of Large Farms Area in the Country
Antioquia	1,639,370	59.5	9.0
Atlántico	178,709	64.5	0.9
Bolívar	1,285,041	70.0	7.0
Boyacá	2,874,876	76.5	16.0
Caldas	517,193	47.0	2.9
Cauca	435,863	45.5	2.4
Córdoba	1,125,513	69.0	6.2
Cundinamarca	661,505	43.5	3.7
Huila	603,427	66.0	3.4
Magdalena	2,657,466	82.0	15.0
Meta	2,908,840	93.5	16.0
Nariño	164,503	24.0	0.9
Norte Santander	372,801	45.0	2.1
Tolima	942,509	58.0	5.0
Valle	677,793	58.5	3.8
Santander	997,415	55.0	5.5
Country	18,042,824	66.0	100.0

Source: Quimbaya, 1967. Appendix 5-13

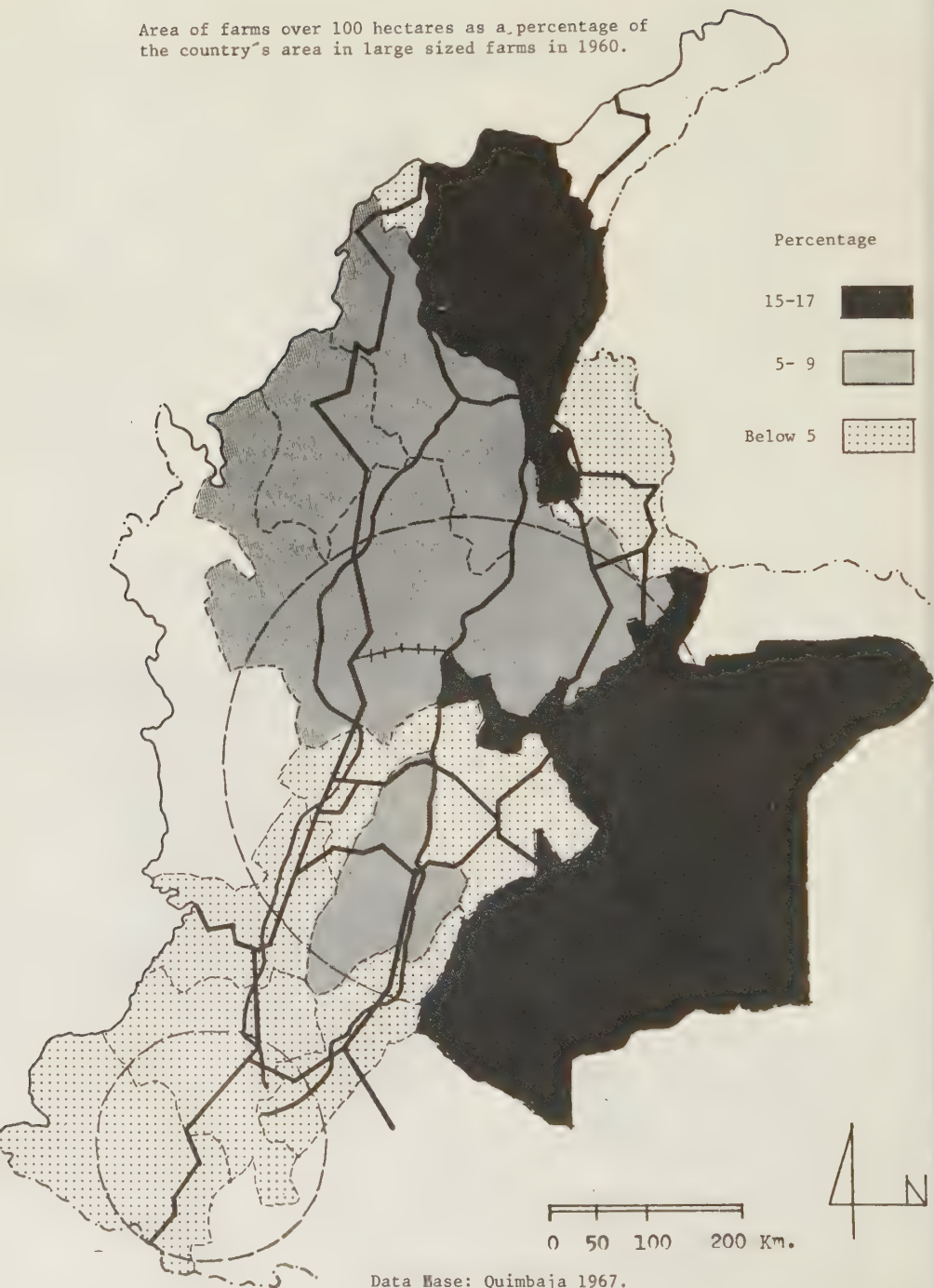
Map 5.

Area of farms over 100 hectares as a percentage of the farm area in each departamento, in 1960.



Map 6.

Area of farms over 100 hectares as a percentage of the country's area in large sized farms in 1960.



Data Base: Quimbaja 1967.

low lands on the Caribbean coast.

These two maps show perhaps the greatest contradiction involved in the latifundia-minifundia problem in Colombia: the poorest peasants are gathered in the mountains of the Andes, in zones difficult to cultivate, while the largest latifundia areas are the low lands of the Caribbean and the east of the Andes in warm climates; large latifundia farms are also found in the low valleys of the Andean region, where it would be much easier to cultivate. However, most of the latifundia farms are not cultivated, as we will have opportunity to see later on. There is in Colombia a very large contradiction in the present ownership structure between existing needs and unused means in the agricultural field.

4.1 Spatial Saturation of Latifundia Farms

Latifundia and minifundia farm regions do not exclude each other in those depts where the minifundia farms are concentrated. Large concentrations of the minifundia are more like islands in the ocean of the latifundia farms.

The following two maps - 7 and 8 - show the concentration of the largest farms by dept, according to the agricultural census of 1960. Throughout this chapter we are including as latifundia all farms larger than 100 hectares. The maps will only show farms over 1,000 hectares in this case, but we hope it will suffice to indicate the extent of the latifundia problem.

The largest concentrations of the latifundia take place outside the center of the Andean region where most of the population of the country is concentrated.

The low lands to the east of the Andes are the worst concentration areas of the latifundia. It has always been believed that the country had these frontier regions as reserve for the future settlers. Yet, we must notice that these territories are already, although scarcely populated, in the hands of few landlords. Farms larger than 50,000 hectares do not appear as isolated phenomena in Colombia.

Certainly, if a land redistribution programme was implemented, the land in the latifundia farms would be more than enough for those who need it. For many of the landless peasants, such a programme would not represent resettlement in areas far away from the places where they live today, as the latifundia are located adjacent to the small farm concentrations.

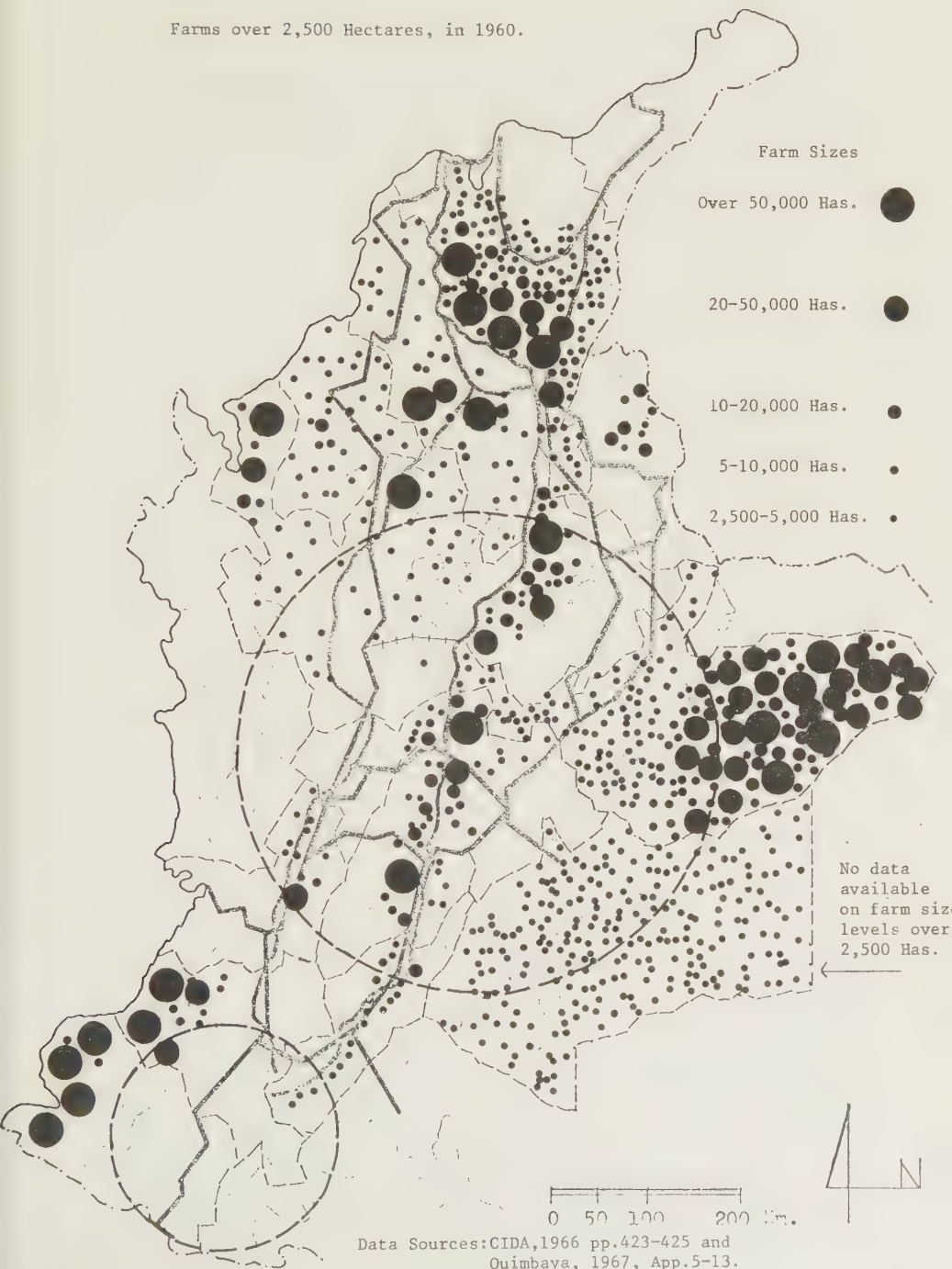
Map 7.

Farms Between 1,000 and 2,500 Hectares, in 1960.



Map 8.

Farms over 2,500 Hectares, in 1960.



5. New Settlement Centers

There are about 50 centers of new settlement in the country. Most of them are composed by groups of landless peasants who have moved away from the concentrations of the minifundia, to places of difficult access which were not settled before. Most of the settlements are located in the Andes, near the minifundia concentrations. Other ones have been founded in the low lands of the Pacific and Atlántico coast and to the east of the Andes. It is certainly a movement in opposite direction from populated centers and also a movement which does not make use of the communication ways that exist.

See Map 9.

New settlements are very rarely found in the form of towns. They are mostly spread groups of small farms with the most primitive agricultural techniques where the game consists of barely surviving.

In the final recommendations in the Appendix these new settlements will be taken into consideration. They should be helped to develop as they have been tested by the peasants by trial and error as places where good agricultural regions could grow in the future.

6. Characteristics and Extent of the Rural Unemployment

In 1960, out of a total 1,368,000 families in the rural areas, about 1,051,000 did not own any land, were working as sharecroppers and in other forms of menial employment, or did not have enough land which could allow them to reach the minimum income level for the rural dwellers.

Farm occupants are going to be looked at here accordingly to occupancy rights and farm sizes. - See Table 6.-

Farms have been divided in four categories with respect to their size:

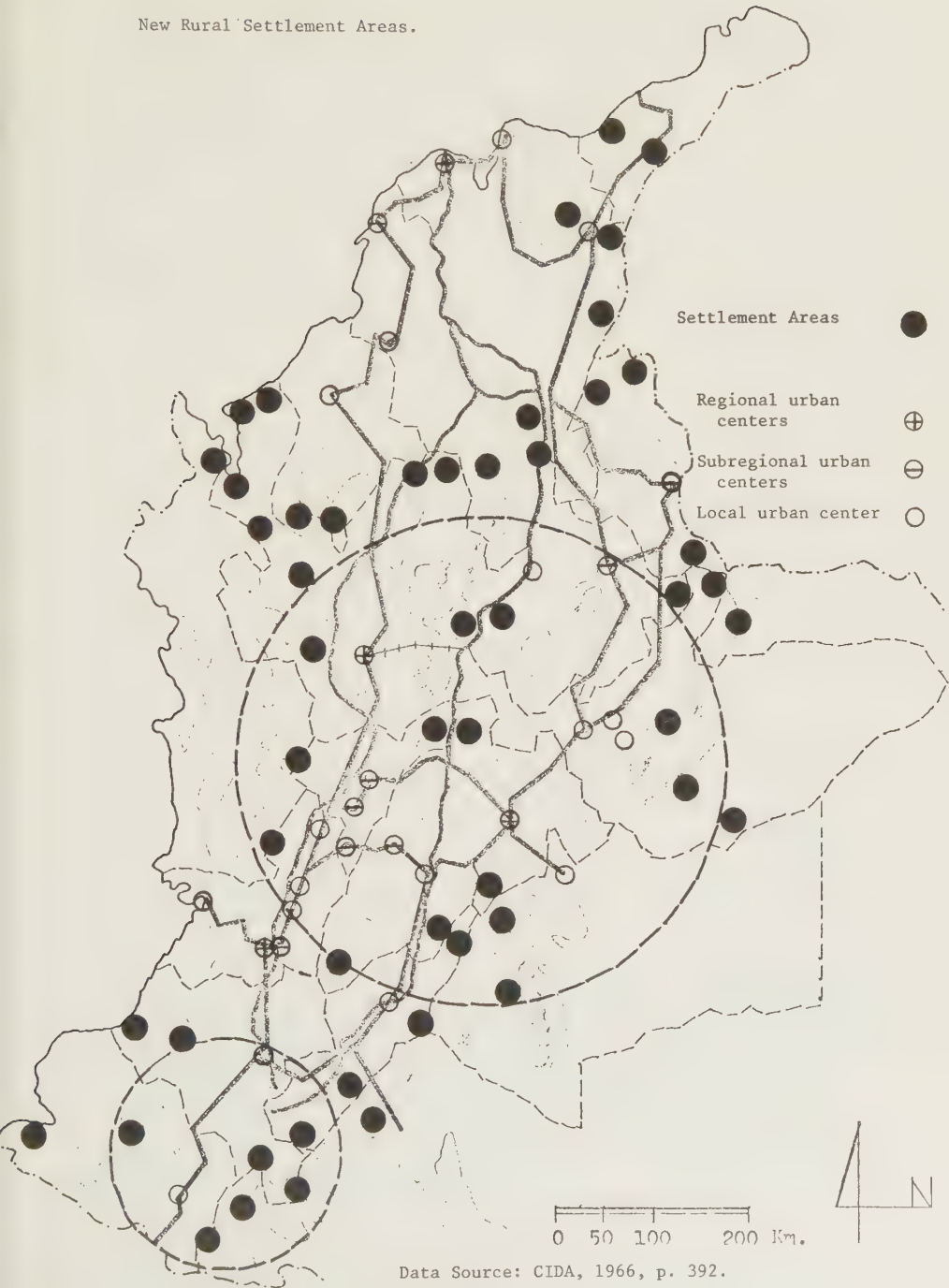
1. Subfamily size farms: those with extension less than the minimum to occupy two persons, with the existing techniques in the country, to get a minimum income level (it is supposed that two persons do the work for a family).

2. Family size farms: those with extensions enough to occupy up to four persons.

3. Multifamily farms: those with extensions enough to occupy up to eight persons.

Map 9.

New Rural Settlement Areas.



Data Source: CIDA, 1966, p. 392.

Table 6

Colombia. Agricultural Population by Farm Types. 1960.

Farm Types	Agricultural Population					
	Families		Active		Total	
	000.'s	%	000.'s	%	000.'s	%
<u>Large Multifamily</u>						
Owners	11.1	0.8	22.2	0.8	65.9	0.8
Sharecroppers	0.9	0.1	1.7	0.1	5.0	0.1
Occupants	1.7	0.1	3.4	0.1	10.2	0.1
Others	1.0	0.1	2.1	0.1	6.3	0.1
Sub-Total	14.7	1.1	29.4	1.1	87.4	1.1
<u>Multifamily</u>						
Owners	39.1	2.9	78.2	3.0	231.5	3.0
Sharecroppers	4.1	0.3	8.2	0.3	24.5	0.3
Occupants	6.5	0.5	13.0	0.5	38.6	0.5
Others	3.9	0.3	7.8	0.3	23.3	0.3
Sub-Total	53.6	4.0	107.2	4.1	317.9	4.1
<u>Family</u>						
Owners	244.7	17.9	489.4	18.5	1,456.2	18.7
Sharecroppers	56.6	4.1	113.2	4.3	338.3	4.3
Occupants	17.5	1.3	35.0	1.3	103.3	1.3
Others	41.7	3.0	83.4	3.1	248.8	3.2
Sub-Total	360.5	26.3	721.0	27.2	2,146.6	27.5
<u>Sub-family</u>						
Owners	454.1	33.2	908.2	34.3	2,703.4	34.7
Sharecroppers	214.0	15.6	428.0	16.1	1,271.0	16.3
Occupants	17.9	1.3	35.8	1.3	104.3	1.3
Others	79.0	5.8	158.0	6.0	469.8	6.0
Sub-Total	765.0	55.9	1,530.0	57.7	4,548.5	58.3
<u>Multif & Large Multif</u>						
Farm Administrators	20.8	1.5	31.2	1.2	83.2	1.1
<u>Family & Subfam</u>						
Farm Administrators	35.8	2.6	53.7	2.0	143.2	1.8
Workers Without Land	118.4	8.6	177.5	6.7	473.6	6.1
Total	1,368.8	100	2,650.0	100	7,800.4	100

Source: Cida, 1966, p 135

4. Large multifamily farms: those with extension enough to occupy up to twenty or more persons.¹⁾

Table 7

The Cida size divisions for the different farm types are:

Farm Types	Andean Region	Caribbean Region	Labour Absorption
Subfamily	Less 5 Has.	Less 10 Has.	Less 2 persons
Family	Bet. 5-50 Has.	Bet. 10-100 Has.	Up to 4 persons
Multifamily	Bet. 50-200 Has.	Bet. 100-500 Has.	Up to 8 persons
Large Multif.	Over 200 Has.	Over 500 Has.	More than 20 persons

Source: CIDA 1966, p. 5

Estimates on farm sizes have been made by CIDA, considering the prevailing agricultural techniques in the country, for the most part very backward, using very old and primitive kinds of tools, with very low animal or mechanical traction - the wheel not being used by the peasants - with very low use of fertilizers and better seeds, and without a conscious effort to use intensive labour techniques which are productive at the same time.

With respect to the irrigation problem it has been estimated that 68 per cent of the lands in the Caribbean, and 90 per cent of those in the Andean area, do get enough rain for potential exploitation.²⁾

Due to very low technological level in the agricultural sector the farm sizes to secure a minimum income are very large in comparison with other countries, for example Japan,³⁾ where very intensive labour techniques are used. The introduction of those kinds of techniques could radically change the picture of the agricultural sector we have at the moment.

Next table is a summary of table 6, and shows the number of Colombian

1) CIDA has, without strong reasons, estimated that the lands in the Caribbean region have lower productivity than the rest of the country, and in this way they have estimated for this region, farm size limits that are twice those of the Andean region. We think that these wide distinctions between the Andean and Caribbean regions are artificial.

In fact the largest commercial farms of the country have been developed during the last ten years in the Caribbean region. Those are the farms producing cash crops as cotton, soya, palm oil, bananas, etc. We have not used those CIDA divisions in our study with the exception of table 6 because of lack of better data.

2) Ibid., p. 15.

3) Smith, Thomas C, 1966. Chapter 7, p. 87.

families which do not have enough land to cultivate or any land at all:

Table 8

Peasant Families With Insufficient or no Land at All

Occupations	Families	Active Population
Subfamily Farm Owners (Families working too small plots)	454,100	908,200
Workers (Families without any land)	118,000	177,500
Sharecroppers, Occupants and others	443,000	989,600
Administrators of Family and Subfamily Farms	35,000	53,700
Total	1,051,000	2,029,000

The large number of peasant families estimated to be unemployed or greatly underemployed, represents 76 per cent of the 1.36 million peasant families spread in the countryside in 1960. No important changes in their number are estimated to have occurred afterwards.

77 per cent of the active agricultural labour force are estimated to have been unemployed in 1960.

7. Effective and Potential Use of Agricultural Land

Hoarding of land by the Colombian landowners goes side by side with a widespread non-utilization of the land they hoard.

The utilization of the land for agricultural purposes reaches in the case of the large farms extremely low levels. See Table 9.

Table 9

Land Utilization by Farm Types

Farm Types	Number of Farms		Total Hect.		Average Size Hect.	Average Cultivated Area	Total Cultivated Area	
		%	(000's)	%			(000's)	%
Subfamily	765,080	64.1	1,331	5.5	1.7	1.0	771	57.9
Family	360,579	30.2	5,938	24.5	16.5	4.5	1,632	27.5
Multifamily	53,565	4.5	6,087	25.1	113.6	10.2	549	9.0
Large Multifamily	14,604	1.2	10,908	44.9	746.9	26.2	382	3.5
Total	1,193,828	100.0	24,264	100.0	20.3	2.8	3,334	100.0

Data Source: CIDA, 1966. pp. 72, 421.

The table shows that for those farms larger than 700 hectares, the average cultivated area is no more than 26 hectares. This happens in the largest farms which are only 1.2 per cent of all the farms but occupy 44.9 of the total farm area of the country.

Of the 27 million hectares that all the farms occupied in 1960, only about 5 million hectares were being used for cultivation, and 1.5 million were fallow land. - See Table 10 -.

Most of the land under cultivation is owned by the poorest peasants. In fact, more than 70 per cent of the cultivated lands are classified into the two lowest categories of farm sizes, the subfamily and family type farms.¹⁾

The country has also wide stretches of land as reserve for the future. The 27 million hectares used for farms now, constitute only about half of the total area of the Caribbean and Andean regions together. The rest of the area is mostly jungle. CIDA has estimated that 60 per cent of the area of the Andean and Caribbean regions could be used for agriculture and cattle raising.²⁾ (See also Table 10)

It represents 29 million hectares - six times the present area under cultivation. A further 35 per cent of these regions has been estimated to be suitable for forestry. This would represent 18 million additional hectares. The hidden possibilities in the country for agricultural land use in the Andean and Caribbean regions are large indeed.

The other great regions in the country, 60 million hectares in frontier unsettled areas, are at this moment unexploited. These regions constitute 54 per cent of the area of the country. It is known that the quality of the

1) Ibid., p. 420.

2) Ibid., p. 21.

Table 10

Colombia. Land Utilization. 1960.

<u>Use type</u>	000.'s <u>Hectares</u>	% Total <u>Area of Country</u>
Area of 16 Departments ^{x)}		
<u>With Agricultural Utilization</u>		
Under seasonal cultivation	2,015	1.8
Fallow land	1,581	1.4
Under permanent cultivation	1,458	1.3
Grazing lands	14,626	12.9
Forests and bushes	6,396	5.6
Without utilization	1,296	1.1
Sub-Total	27,372	24.1
<u>Without Economic Utilization</u>		
Mountainous forests, jungle	8,970	7.9
Prairie forests, jungle	6,100	5.4
Prairies	4,450	3.9
Chilly lands	1,385	1.2
Lakes, rivers, shallows	3,675	3.2
Sub-Total	24,580	21.6
<u>Built Area and Ways</u>		
Total Departments	52,196	45.9
Area of the rest of the country		
<u>Without Utilization</u> (jungle, and lands without use)	61,416	54.1
<u>Total Area of the Country</u>	<u>113,611</u>	<u>100.0</u>

x) Antioquia, Atlántico, Bolívar, Boyacá, Caldas, Cauca, Córdoba, Cundinamarca
Huila, Magdalena, Meta, Nariño, Norte Santander, Santander, Tolima, Valle.

Source: CIDA, 1966, p 18

land is not as high as in the Andean and Caribbean regions, and large water regulating and infrastructural investments are needed before these lands can be used. Yet the country may have to look in the future at these regions and integrate them, in keeping pace with the rapid population increases. If only one third of the unsettled regions were assumed to be suitable for agriculture, then another 22 million hectares could be integrated to the national economy.

A total 51 million hectares could then possibly be used for agriculture, cattle raising, and forestry in the country. This is more than ten times the present agricultural area effectively used. However, the possibilities of labour absorption in the countryside are certainly not unlimited, and above all depend on the kind of technology used. With the present technological level of the country where the minimum farm size per family could be considered to be 10 hectares, the whole of the countryside could not absorb more than 5 million families, of which there are already 1.3 million in the Andean and Caribbean regions.

The Andean and Caribbean regions could receive under the worse conditions 2.9 million families in their potential 29 million hectares. Discounting the 1.3 million families already in the countryside, then 1.6 million new families could be given jobs in these regions.

2.2 million families could be given jobs in the other three regions - the Orinoquia, Amazonia and Pacific.

3.8 million new families could thus be employed in the countryside plus the 1.3 million already living there. As it was shown before, the country will increase its population by 13 million between 1970 and 1985. The 13 million persons constitute about 2.16 million new families with an average of 6 persons per family. The increases in population will take place in the urban areas. But the countryside will have to be looked upon for giving employment at least to a fraction of the great number of unemployed in the urban areas.

8. Productivity by Farm Size in Colombia

As a last example, to show the absurdity of the Colombian land ownership structure, it is presented here an analysis of the productivity by farm sizes. See Table 11.

The rich landowners, who constitute less than one per cent of the population in the countryside and own 45 per cent of the land, contribute only

with 14.9 per cent of the total value of the agricultural production. While the small and medium landowners, which are 94 per cent of the peasants, working 31 per cent of the land, contribute with 65.8 per cent of the agricultural production.

The productivity coefficients per hectare are 3.8 for the poorest people and 0.33 for the rich landowners. The participation coefficients per family indicate why the rich landowners do not make any efforts to use their land. Because of the sheer size of their farms their gains become so high with respect to the rest of people working in agriculture, that they do not need to work any harder.

The results shown in this table speak clearly against those who defend the latifundia type of agriculture, as being the progressive one in the Colombian case:

"Myrdals dictum, 'Land reforms have their significance in the national plan not only as a precondition for raising productivity in agriculture, but primarily as a means of shattering the foundations of the old class structure of a stagnating society', certainly does not apply to Colombia, where the progressive farmers are generally large, and the small farmers are stagnating or retrogressing."¹⁾

Table 11

Colombia. Proportional Distribution of the Value of Agricultural Production in Relation to the Farm Sizes, and Productivity of Farms.

Farm Type	Value of Production %	Number of Families %	Area %	Participation Coeff. per Family	Productivity Coeff. per Hectare
	(1)	(2)	(3)	(1:2)	(1:3)
Subfamily	20.8	34	5.5	0.33	3.80
Family	45.0	30	24.5	1.50	1.85
Multifamily	19.1	5	25.0	3.80	0.76
Large Multifamily	14.9	1	45.0	15.00	0.33
	100.0	100.0	100.0		

Source: CIDA, 1966. p. 201.

1) Currie, Lauchlin, 1966.

9. Summary

This chapter has shown the two most important aspects of the land ownership structure in Colombia: on one hand the spatial aspect and on the other the economic and social one.

On the spatial side, the two largest poles which integrate the structures of the countryside are the latifundia and minifundia problems.

1. The spatial concentration of the minifundia problem to the central and southern parts of the Andean region, and the spatial dispersion with saturation of the latifundia farms throughout the whole country were shown here.

The strongest minifundia concentrations are found in cold and medium climates, in very stepped terrains of the Andean mountain chains, where any mechanization of agriculture, if it were started, would be very different and expensive. Some of the most important agricultural areas of the country are strong centres of minifundia. The largest concentrations of minifundia in the Andean region are precisely the areas from which the largest migration flows to the urban areas are taking place. Among them is the coffee triangle which is at the same time the largest centre of rural to urban migration in the country.

2. Latifundia concentrations are found throughout the whole country, but more especially in the plains outside the Andean mountains, near the Caribbean coast, in the frontier regions to the east of the Andes, on the Pacific coast, and on the Magdalena and Cauca river Valleys in the Andean region. Very large farms, larger than 50,000 hectares are found throughout the country. These lands could in the future be converted into production areas for tropical cash crops.

3. Among the most important aspects of the rural sector was found that most of the large farms are kept uncultivated. Productivity per hectare - more than 10 times larger in the smallest farms than in the largest ones - reflects in pure geographical terms the costs incurred from distance for the use of the land, well studied by von Thünen. Yet the economic and social repercussions of the problem seem to go further than the pure geographical ones, as land in Colombia is more an object of prestige that brings with itself power in other sectors of society, which may very well outweigh pure geographical considerations of distance for the decision not to cultivate the land.

Many of the peasants are very poor. Most of them play a more or less passive roll in the process of spatial differentiation that takes place in

the countryside. All of them are, however, active subjects that experience the results of the differentiation process.

In spite of the fact that land is not scarce in Colombia, 77 per cent of the active labour force in the countryside, more than two million peasants, and their families, must be considered unemployed, or underemployed in such way that they only reach the subsistence level.

4. Migration on the one hand, and poverty and lack of productive jobs in the countryside have a very high relation in the Colombian case. If we look at Map 4 which shows the spatial concentration of farms smaller than 3 hectares and compare it with Table 3 and Map 6, Chapter 4 - the table shows interdepartamental migration flows and the map intradepartamental migration flows - we can easily see the existing connections.

Both the largest total intraregional rural to urban migration flows and the largest interregional rural to urban migration flows, take place in those departamentos with large concentrations of minifundia.

Thus, the largest intraregional rural to urban migration flows are found in Valle, Caldas, Cundinamarca, Tolima, all departamentos with large minifundia concentrations.

Additionally, very high indexes of interregional rural to urban emigration flows are found leading from Boyacá, Santander and Nariño where very large minifundia concentrations are found.

CONCLUSION

1. Main Findings of this Study

An enumeration of the main findings throughout this study reveals the very deep and wide crisis confronting the spatial structure and the political, social and economic structures of the country which has been object of analysis:

1. The strong migration flows from the countryside towards the urban areas, along with the overconcentration of the urban population in the largest urban areas, have been the focus of our analysis. The existent unemployment problem was chosen to be the light under which we analyzed the importance and effects for the country as a whole, of the large migration flows observed.

Unemployment has clearly proved to be worthy of the large importance attached to it throughout this study. During the great depression of the 1930's in the U.S., the highest unemployment rates were reached in the year 1933 when a very high 24.9 per cent of the active labour force was unemployed.¹⁾ In Colombia the unemployment rates found are twice as high as those for the U.S. in 1933, with the difference in the Colombian case that these unemployment rates continue throughout the years. They were found in 1970 in the large study by ILO on employment problems in the country, and they will be even larger ten years from now if nothing is done.

The concentration of the unemployed was, in 1970, heaviest in the countryside. Due to the large migration flows to the urban areas, it is expected that the gravity center of the problem will be found in those areas in 1985. Of the 3.4 million unemployed in 1970, 70 per cent were found in the rural areas. Of the 5.7 million estimated unemployed for the year 1985, it is expected that only about 37 per cent of them will be in the rural areas.

The dimensions of the problem can be summarized by saying that the country needs to create more than 7 million jobs up to 1985, if it is to cope with the increases in the active labour force for the period.

2. Most of the peasants were found isolated in the rural areas, very often in large concentrations of minifundia in the central parts of the Andean region. Out of a total of 1.3 million families in the countryside, 1 million were to be considered unemployed due to the very small plots they have. The largest migration flows to the urban areas have points of origin

1) Baran, P.A. and Sweezy, P.M., 1966, p. 233.

with high correlation with those areas where the largest minifundia concentrations are located.

The large landowners, those with farms over 100 hectares were found to own 66 per cent of the farm area of the country, concentrated in 5.5 per cent of the total number of farms. Many farms were found larger than 20 and even 50 thousand hectares, mostly kept uncultivated.

3. More than 200,000 peasants were migrating every year to the urban areas. There was also a very strong intraurban migration current with more than 60,000 people per year.

4. Most of the rural to urban and the intraurban migrants had as destination points the four largest urban areas of the country - Bogotá, Medellín, Cali, Barranquilla -. The large attraction exerted by these cities was due to the fact that most part of the production of goods and services, was concentrated there. All kinds of specialized services, educational, cultural, financial, health, administrative, etc. were concentrated to these areas. From the labour market point of view these urban areas had more than 80 per cent of the production of industrial goods in the country. Yet it was impossible for the peasants arriving to these cities to get jobs, as industry only absorbs 10,000 new workers per year in the whole country. Not only a great part of the 300,000 migrants per year were becoming concentrated in the four large regional urban areas, but a very great part of the estimated vegetative increases in the active labour force for the country, that was estimated to be 200,000 people per year.¹⁾

Most of the migrants to the large cities had to accept their new situation of being permanently unemployed; some of them could get occasional jobs, and some others could become self-employed in unproductive service and menial-type jobs. The prospects for the year 1985 indicate a worsening of the present situation.

If the large regional urban areas continue growing at the same pace they did up to the middle of the 1960's, almost 50 per cent of the population of the country will be in those four cities in 1985. Bogotá alone is expected to become a great slum of 7 million people.

5. No social type services - with the exception of the low quality, two courses schools that serve some of the peasants - are found in the countryside. The isolated peasants might as well not exist for the rest of the country. Yet, the country earns its largest foreign income from the sales of the most important agricultural product which is coffee.

1) ILO. 1970, p. 30.

6. No social type services reaches the concentrations of peasants who have migrated to the slums of the large urban areas. Due to the fact that each of these services must be paid for directly by each potential user - for example, no patient would be treated at a hospital before he has paid for it - the slum dwellers, former migrants, are excluded from them, as their situation of unemployment does not give them an income. Very often the slum dwellers live on lands, and use services like running water and electricity, because they take them by force.

2. Functionality of the Migration Processes

The large migration flows in Colombia have served to dramatize the very large disfunctionalities existing in that society. The migration movements themselves have not been functional for those who migrate or for the country as a whole. There are, however, some very positive aspects of the migration movements:

1. Concentration of the unemployed in a few large urban areas makes their problem very visible. This was not possible before, when the peasants were scattered and hidden in the countryside.

2. Peasants in the urban areas become a goal for co-optation by political groups and in this way new channels are opened for the communication between the authorities and their clientele.

3. By becoming concentrated in a few urban areas, it is possible for some of the peasants to get legal access to some of the social services, and for some others by illegal means. To get access to them in the rural areas is impossible. And it would be also impossible for the authorities to provide them, due to the great distances the peasants live away from the urban areas and in many cases from each other.

These are the positive aspects of the migration processes. The very pronounced negative aspects of the same movements are:

1. Extremely high unemployment rates among the migrants before as well as after the migration has taken place.

2. Great poverty, hunger and need in the slum areas due to the lack of employment.

3. The peasants in the urban areas do not have an education that permits them to compete for the few qualified new job openings. The migrants have as a background a practical training in the traditional methods of agriculture in use in the country. This kind of education is, of course, of no good to compete in the urban areas.

4. Lack of security for those living in the slum areas. As most of these areas are on lands which have been invaded by the migrants, the dwellers become automatically outlaws to be persecuted by the police.

There are more than enough negative aspects of the migration flows, to neutralize the positive ones. Some scholars who have worked on migration problems in Colombia have seen in the migration movements something which is reducing the disequilibrium between labour markets. In their concept migration as it is, is something beneficial for the country and for the migrants:

"Migration in Colombia appears to follow predictable lines, reducing disequilibrium between regional labour markets. Our evidence confirms that interregional migration responds strongly to market forces, drawing rural labour to the cities from regions where the returns to labour are relatively low and the supply of labour is growing relatively rapidly. Although incomes of much of the urban labour force have stagnated during the last decade, they are, nevertheless, substantially in excess of those earned by comparably educated persons in the countryside. Internal migration of the magnitude experienced by Colombia is therefore the consequence of fundamental forces that will not be turned aside lightly."

"In terms of the economic objectives of raising labour productivity and increasing national income, migration per se is nothing to be alarmed about. Indeed, given population growth migration is likely to have a beneficial effect for the migrant. For the country as a whole, migration performs an important function in the development process, facilitating structural change and keeping the difference between rural and urban incomes within bounds. Given the apparent rationality of the migration process, it seems likely that if migration were to become strongly dysfunctional and urban unemployment rates were to rise very sharply, the process would be more or less self-correcting. If this is true, the benefits of migration may well outweigh the social costs incurred in providing housing and public services at a higher cost in the urban than in the rural areas."¹⁾

There are several criticisms we must make to the present approach to the translation of the migration movements in Colombia; we are going to do it based on the conclusions we have arrived at in this study.

1. Migration in Colombia is not reducing the disequilibrium between the regional labour markets because the migrants, most of them, do not belong to the labour market neither before or after they have migrated to the urban areas.

2. Lack of education of the peasants does not allow them to compete in the small labour markets that exist in the country.

3. Peasants migrating from the countryside do not increase the productivity of the countryside because:

3.1 The latifundia farms continue unexploited before and after the migration of the landless peasants.

1) Nelson, Shultz and Slighon, 1971, p. 75.

3.2 With respect to the productivity rates in the minifundia farms the migrants come from, it is possible that both the productivity per area and per man decreases as they leave. Those who are migrants are the young population of working age, and those who are left behind are the old, the sick and those who can not leave.

4. Rural to urban migration in Colombia is not a self-correcting process. We consider that the apparent rationality of the process, and its explanation in terms of adjustments to the offer and demand for labour can not be taken for granted. The Colombian cities must continue to receive the peasants, as the cities are the only place left over for those who are unemployed and landless. Migration takes place in spite of the disfunctionality of the process and in spite of the very high urban unemployment rates.

Certainly, in spite of the migration flows taking place, unemployment in the country has remained if not increased. If the problem was more strongly concentrated to the rural areas in the past, its stronghold will be the urban areas in the future.

APPENDIX 1. SOME TENTATIVE PROPOSALS FOR THE FUTURE

The vast problems found in this study would require for their treatment an extensive and very complex series of measures which would fill many volumes to describe.

On the other hand, we can not presume to know the answer to all the spatial and non-spatial problems found in this study.

We present in this Appendix, a sketch of those tasks we consider the most urgent ones to perform in the Colombian case. We have not included these final considerations in a chapter form, because of the very incomplete and shortened type of them.

As it will be understood from reading these recommendations to transform the very serious situation the country is going through, implies, not least a great turning around, reorganization and rethinking of the whole spatial structure of the country. It also implies a whole new set of structures in the most sensitive and complex levels of the country. Changes at the economic and social and consequently political levels of the country. The great difficulty in the series of alternative changes presented, is that the experiences of the country in the past are not very positive with respect to the introduction and spread of new ideas that represent gains for more than very reduced sectors of society.

As the introduction and spread of ideas has proved to be so alien in very sensitive sectors, alternative proposals look more like mere suppositions, without any strength. Other people who have worked with Colombian problems have found the same problem. Those responsible for the important ILO study on employment in 1970 wrote:

"... our conclusions are often qualified and tentative; but this does not mean that they are pusillanimous. Given the size of the problem, we see no need to apologize for the apparent boldness of any recommendation, nor for the wide range of fields which are covered."¹)

1. Alternative Ways of Action for the Future

Different questions that arise about the problems of which migration is such a strong expression, will be revised here.

The tautological alternative to the mass unemployment of 7 million Colombians in 1985, is no other than the creation of enough jobs for those

1) ILO. 1970, p. 12.

7 million people.

"... the supplies of different job opportunities form part of the total social environment from the point of view of the individual. Job opportunities combine with housing conditions, service, educational and welfare provisions and recreational amenities to determine the total living conditions or 'quality of life' of a particular urban unit. Together these factors influence migration and ultimately the distribution of population, and these in turn labour market conditions; the population distribution is clearly the focal point of this complex sets of interrelationships, representing the outcome of numerous interacting forces."¹⁾

To propose some kind of goal for what should be achieved in the future does not represent a large problem. However, it is more difficult to ascertain how these goals could be reached. In the case we are studying there are a series of spatial and non-spatial questions that should be examined with respect to this. We must go back to the non-spatial model presented in chapter one, where the rural to urban migration flows were presented as the result of the intersection of a series of subsets that, in their turn, were contained in the intersection of three important sets.

The three subsets were the urban unemployment, the rural unemployment and the land ownership structure subsets.

The three major sets were the dependence dimension, the socio-political and economic internal structure, and the demographic dimension set.

Migration in Colombia is thus the result of a very complex series of relationships that extend their areas of influence over the most varied and important sectors of the Colombian society.

The transformations and changes on a large scale that ought to be performed in case of treating the problem of the unemployed migrants would immediately produce feed-back effects upon the series of sets and subsets surrounding it. These effects could be so strong that they totally changed or possibly eliminated the subsets and sets in their present state. To give an example, in order to reduce the large migration flows of the unemployed, it would be required among other important measures, to implement a very large family planning programme and birth control programme, to deaccelerate the too rapid growth of the active labour force in the future. The reductions needed in the population growth are so large that the most probable effects are that the demographic dimension set disappears as a whole, if the programmes for family planning are successful.

The fact that the expected feed-backs are prone to widely change or eli-

1) EFTA, 1973, p. 18.

minate the sets and subsets, does not show how easy it is to introduce changes within the system, but how difficult. Some of these sets and subsets are rooted in the beliefs and in the legal, economic, ideological and cultural institutions. For example, in the case of changes in the population growth, there are in many case religious beliefs, reinforced by the Catholic Church as institution, to hinder the introduction of birth control practices.

On the other hand, if the feed-backs of treating the problems of the migrants are not so powerful that they change for transform in a fundamental way some of the sets, it is apparent that no transformations would take place at the level of the unemployed migrants, as their problem is only a very small resultant of the interaction of sets and subsets. The only possibilities are that the institutions dominant at the set level arrive at a compromise, to permit the changes to occur inside the system. In the case of the powerful Catholic Church, it seems as if this institution is not yet ready to reach a compromise concerning the urgent population question.

In such a case, the series of innovations that are proposed in this part of the study would not be workable. Yet, the urgency of the problems is so large, that if no compromises are reached, one of the probable effects would be that the Colombians, that are themselves affected by the problems, revolt in the future against the dominant institutions in the system and by force and violence change or eliminate those institutions. It could certainly happen so in the case of the economic, social, legal and cultural institutions.

1.1 Alternatives at the Subset Level

In order to make an inventory of the spatial location of the would-be and of those who are migrants, who need to get jobs, and compare it with the spatial location of the main assets the country has for providing employment, we need to consider three aspects:

1. Most of the unemployed, but not all of them, are in the urban areas.
2. The industrial and service sectors in the cities have a very low capacity to receive the unemployed.
3. The countryside has a potential capacity to provide jobs of agricultural type, if the high concentration of the ownership structure is broken.

Let us now think a moment of the spatial possibilities of mobility of the three important elements, men, industries and services, and agricultu-

ral land. To measure their mobility on a scale from 0 to 1, where 0 represents total lack of mobility and 1 maximum mobility, we get as a result.

Land = mobility 0

Industries and services = mobility 0.5

Men = mobility 1

Land is of course non-mobile. However, many of the most important urban areas have surged in the center of regions with the best agricultural land. Exception are those urban areas that owe their location to the nearness to special resources, for example, good harbours or important minerals or due to their strategic location for commerce, for example in the borders between countries. In this way in the populated areas of the country, land has already been given values by the near location of men, that are quite equivalent to spatial mobility by itself. Fertile agricultural regions are located near to, and barren agricultural regions far away, from the location of men.¹⁾

In Colombia there is the important exception of the frontier regions to the east of the Andes, and of the low coastal valleys of the Caribbean, which in spite of their suitability for agricultural purposes, are now very thinly populated and very rarely used for agriculture. The main cause of this is attributed to the fact that these regions, in warm climates, were infested before by malaria, yellow fever, dysentery, worms, etc. After the Second World War new medicines have come and today, these lands belong to the latifundia regions with extremely large and unused farms, but isolated from the urban areas.²⁾

Industry and services, due to their strong requirements of scale, markets, skilled labour, infrastructural services, financial services, and large dimensioning of communication ways have a high tendency to locate near the core of the large urban areas. In spite of these rigidities in the requirements for their location, there are sometimes possibilities for the location of small scale industries to some of the minor urban areas. In the Colombian case the overconcentration of the industrial sector is very strong, and with the exception of the four largest urban areas, the rest of the country is void of development at this moment.

Man is probably the most mobile of the resources of the country. However, even in the case of the peasants living isolated in the countryside today,

1) Friedmann, J., 1966, p. 147.

2) Dahl, Georg, 1970, p. 148.

there is a powerful argument for an increased concentration of the population to central places where they can constitute a minimum of demand for the different services that the country can offer. A clear case of the application of these ways of thinking is the Tanzanian one.¹⁾ Although the argument for a concentration of the population in central places appears self-evident, the means to reach this goal and the results in the Tanzanian case are not so.

Great economic and organizational strains imposed on the country, if a minimum of services is to be given to the population, are very clearly seen in this case.

The very great diversity of voids to fill in the Tanzanian case, i. e., the provision of immediate needs as health, water and educational services, which most of the population seem to prefer are in collision course with the most immediate objectives of the central government to be able to continue existing as such. Those goals are based on the rapid economic growth of the country.

The very great difficulties found in reconciling the interests of the beauracracy against the interests of the villagers in reaching the goals of the central government are illuminated by the case of the Regional Commissioner in Mwanza who in 1965 "found it necessary to send the paramilitary unit of the police to Ukerene to force farmers to apply fertilizer to their cotten crop".²⁾ This is with respect to the less espezialized services that a country can offer.

With respect to the most espezialized type of services, where large restrictions exist with respect to the scale, linkages, communications, etc., these services are constrained to be located to the most central parts of the large urban areas. There is a need for the population to have very good communication possibilities to the specialized centers.

In the underdeveloped countries, where both roads and vehicles very often are non existent or of very low quality, there is a further need for the population to live in very restricted places. It becomes important to have strategical locations with respect to the communication systems, the few existing ones, to create a possibility for the population to be served.³⁾

1) Nordström, Olof, 1975.

Also Pióro, Zygmunt, Growth Poles and Growth Centres Theory as Applied to Settlement Development in Tanzania, in Kuklinski (ed) 1972.

2) Finucane James, R., 1974, p. 45.

Also, Hydén, Göran, 1972.

3) EFTA, 1973.

Also, Gould Peter and Törnqvist, Gunnar. Information, Innovation and Acceptance, in Hägerstrand and Kuklinski (eds) 1971.

1.1.1 Low Labour Absorption in the Urban Areas.

Industry, the leading sector with respect to employment possibilities in the cities, has had very low job creating capacity in the past, and there are no indications of major changes in the decade to come.

One of the main reasons for the low labour creation in this important sector is the very high costs of the capital intensive technology, the only available, that is bought from the industrialized countries. The very fast raising prices of creating jobs in the industrial sector can be compared with the investments necessary for creating jobs in the rural areas, through technical programmes of land redistribution:

"From 1957 to 1961 some 53,000 new jobs were created in modern industry, or an average of nearly 11,000 per year, and the fixed capital invested per new job was 45,000 pesos of 1958. From 1962 to 1966 only 34,000 new jobs were created, or an annual average of under 7,000 with fixed capital investment per new job of 100,000 1958 pesos. In other words, the real capital per extra job doubled."¹⁾

"As a very rough comparison, however, with an urban solution, the following approximate costs were estimated by INCORA to reflect the relative order of magnitude per family settled. For irrigation 90,000 pesos, for colonisation 40,000 pesos, and for redistribution 20,000 pesos. (Note by the author: These are costs per family in different types of settlement programmes.) The last category is, however, made cheaper by the fact that much land is usually at least partially developed; what is included is often mainly the demarcation of holdings and issuance of titles to sharecroppers who were already squatting on the land. While irrigation and colonisation involve mostly 'real' costs, involving physical resources, the cost of redistribution is largely a 'transfer' to recompense the former owner."²⁾

As it is shown, in the cases of transfer of the land from the latifundia to the land reform programmes, with high commercial prices paid for it, it is feasible to create jobs for 5 families with the same costs of one job for one person in industry. As there are an average of 2 working persons per family, then it is achievable to create ten jobs in the rural areas at the same costs than creating one job in the industrial sector.

Of the 6.5 million jobs that the country needs to create between 1970 and 1985, it is expected that the industrial sector will contribute with 150,000. If this sector is assumed to have a high multiplier effect upon the starting of new jobs in the service sectors of 1:4, then we would see 600,000 new jobs in this sectors for a total 750,000 new jobs in the urban areas up to 1985.

1) ILO, 1970, p. 102.

2) Ibid., p. 68.

However, the estimates by ILO shown on Table 4, Chapter 5, on the growth in the number of jobs in the urban areas variate between 1.25 and 1.65 million up to 1985. In spite of the large difference with our own estimates, we accept the larger and more optimistic ones by ILO, for our study. In such a case, of the 7 million jobs to create in the country, the urban areas would offer 1.65 million. There would be about 5.5 million more jobs to be created.

1.1.2 Labour Absorption Potential of the Rural Areas.

Nearly half of the remaining 5.5 million jobs to be created in the country up to 1985 should be for the one million families in the countryside. The number of the rural unemployed in 1975 will be about 2.3 million. The remaining 3.2 million unemployed will be found in the urban areas. We have also seen the map that shows the largest concentrations of landless peasants in the Andean rural areas. These concentrations cover about 1.4 million unemployed in 680,000 farms. The rest of the rural unemployed, nearly one million people are spread throughout the country.

The rural areas seem to have the potential for giving meaningful employment to large number of the rural and urban unemployed. The key to a solution to the problem is the large transformations necessary before the countryside can be converted from a potential to an effective economic asset for the country. The first step necessary would be a wide land redistribution programme that could give land to the unemployed.

The very powerful economic, social, political institutions and beliefs and customs behind the existing land ownership structure can be compared with those represented by the Catholic Church in the case of the family planning programmes. The success of a wide programme of job creation depends then on the acceptance by the existing institutions of wide changes in the countryside. The existing land redistribution programmes have been hindered to such an extent, that only an average of 900 families per year have received land. In this case, the number of families that should get land would be 250,000 per year during 10 years. This shows the great differences between what has been done and what ought to be done.

The proposals here are, from the point of view of the scant treatment the land ownership problems have received, and from the size of the needed changes, quite disproportionate.

The quality of the land in the country is high, and the wide variation of climatic zones permits the cultivation of all kinds of temperate and tro-

pical crops. There are large markets that could take more products for example USA, Europe, Canada and probably Japan. Some products as coffee and bananas are sold in many countries including Sweden. A new potential export product, especially to USA and partially to Sweden, is flowers. The country could additionally become exporter of timber, vegetables, oil and high protein seeds, meat, flowers, fruits, shrimp, etc. Many of the products mentioned, for example flowers, require very high labour intensity, and do not consume any oil as the same products do in Sweden. In the agricultural field the country has the potential capacity for competing in world markets, as very important assets such as high abundance of labour, good lands and a variety of climates coexist with each other, although they are unused at the present.

1.1.3 Potential Mobility of the Unemployed Labour Force

Of the 5.5 million unemployed to be given work in the countryside, 2.3 million are already living there. The remaining 3.2 million are unemployed in the urban areas, especially in the four largest ones. Most of them are people that have migrated from the countryside and who have practical experience in traditional types of agriculture. New employment possibilities could be created through a return to the countryside, making sure that within totally different conditions than those they had when they were living there.

1.2 Proposal for Creation of Small Development Centers (SDC)

It is proposed here, the creation of functional economic areas,¹⁾ consisting of agricultural units to be located and developed around small towns in the countryside. The functional economic areas ought to have direct connection to the sizable urban areas that already exist. Most of the towns that are proposed as head of the Small Development Centers, SDC, already exist. Some of them have infrastructure that could be expanded for the incoming urban-peasants.

The basic idea consists of creating agricultural-urban units as main source of employment, while the areas of residence will be concentrated to small towns where all kinds of common services can be built. The towns are

1) Johnson, E.A.J., 1970, p. 181.

to be well located with respect to the urban areas, so that people and all kind of products and information can move efficiently among the different levels, as systems of public transport will be developed.

The small size of the SDC have as a consequence that the infrastructure to be built is simple and cheap and of small dimensions that do not require the use of expensive mechanization. The kind of material used for housing and other buildings can be domestic ones, such as bamboo walls and palm roofs, instead of those like cement and tiles used in the cities. The small size of the towns will permit the daily transport of people between their houses and the fields by the simplest ways as bicycles or on foot. This is in contrast with the very large need for public transport in the urban areas in order to reach the place of work.

The great profit for the people who would come to live in the SDC is that they would be able to have meaningful jobs of agricultural type while at the same time they could be provided with the kind of social and infra-structural services existent in the urban areas. In other words they would be enjoying the best things that the rural and the urban areas have to offer.

As for the country as a whole the very important benefits that would accrue from this reorganization of the urban structure would be large:

"The evidence is quite clear: the underdeveloped countries cannot create tolerably satisfactory market economies without a spatially dispersed hierarchy of rural growth centers, market towns, small cities and other central places that collectively can counterbalance the pull of their voracious metropolitan centers. This structural paraphernalia is needed for its immediate functional utility, not as a device that will permit underdeveloped countries to enter into some mandatory 'stage' of development so that they will be able, sometime later on, to advance to a 'higher' stage in a teleological progression".¹⁾

"The task is to visualize a process of transformation that will widen the occupational opportunities for millions of villageborn young people, increase total employment, and give greater scope for the adventurous and the ambitious without overpopulating the already exploding few large cities. In countries as densely populated as India, for example, the relief which migration to large cities can bring to rural areas is really quite insignificant, while the planless urban concentration of very imperfectly utilized man power creates problems that are rapidly becoming unmanageable. It should be apparent that the uncritically assessed assumption that urban industrialization will gradually 'modernize' the economies of the 'third world' is a baneful variety of romanticism which needs to be exposed not only for its naiveté but for its inherently mischievous consequences."²⁾

1) Ibid., p. 242.

2) Ibid., p. 165.

The following paragraphs will show the main changes and transformations proposed at two levels: first at the family and second at the aggregated groups level. The second level contains changes at the agro-towns and small development centers at sub-regional, regional and national levels.

The most marked and important characteristic that should accompany the changes and transformations in the country would perhaps be the greatest economizing of the scarce resources that exist. Most of the material transformations in the spatial structure should be undertaken by those who are going to be users. Clearly, the State should contribute with all the available means, but many of the resources of the country are so scarce, that they must be directly created by the potential users.

1.2.1 Main Proposals at the Family Level

Families of the unemployed in the countryside and of those unemployed in the urban areas and living in slum areas, will be stimulated to resettle in places within easy reach of the large urban areas, in areas where they would be guaranteed meaningful jobs and secure places of living.

The most important innovations for the families would be:

1. Every family could be guaranteed twice the minimum farm size acceptable for making a living in the country. Each family would be given, in principle, 10 hectares of land. Although the methods of cultivation would not be constrained to the family level, but at the town level, the agro-town. This in order to gain from economies of scale, and to make an efficient and economic use of the few tools and agricultural technicians that exist in the country.

2. In order to guarantee employment throughout the year it is proposed that the families shall cultivate the fields in common. Then in the slack agricultural seasons, it is also proposed that the families living in each town shall unite and build together the most important infrastructure and service buildings that are needed in each town.

It is true that the country does not have the financial means to pay for the erection of expensive buildings. There is, however, a widespread knowledge among the population of building with cheap and ubiquitous materials. Simple buildings and services could be improved as each community grew richer. The most important list of services and infrastructure to be built would be:

1. Brick and tile kilns.
2. Housing.
3. Multipurpose buildings for schools, health centers, nurseries, cooperatives, recreation centers, small industry workshops.
4. Infrastructure for electricity and telephone lines, aqueducts and sewers.
5. Roads to connect to larger towns and agricultural roads in the fields.
6. Specialized agricultural works like dams and irrigation channels, drainage channels, storage buildings, stalls, sawmills.

1.2.2. Main Proposals at the Small Development Centers and Agro-Towns Levels.

The SDC are proposed as small growth centers in the rural areas and they are proposed to be the main nucleus for the resettlement of the unemployed. The main characteristics of these centers are:

1. SDC will be formed by small agricultural villages, Agrotowns, surrounding and joining by short roads a main large town with population between 10,000 and 30,000 where some more specialized services and markets for a group of Agrotowns will be found. The concentration of a group of Agrotowns with the surrounding agricultural fields around each Agrotown, plus the Central Town serving as the center for the group, will be called a Small Development Center, SDC.

2. SDC in their turn will be located at short distances and in direct communication with some of the urban areas, where they will get more specialized types of services.

3. The urban areas, especially those of sub-regional and regional importance will give services to several groups of SDC. The main idea is that through direct and efficient communications between the large urban areas and the SDC, the former will be able to extend their ranges to the SDC and in this way fulfill two important roles:

- 3.1 To serve as large centers for the provision of specialized goods and services and in this way replace the lack of mobility of the poor in the SDC by extending these services to the countryside.

- 3.2 To serve as a very large market that exert demand upon the products of the SDC and that can also sell important industrial goods.

4. Communication systems between the SDC and the urban areas will be direct and by short roads. Communications inside the SDC are proposed to be

established in the simplest way. Communication between housing centers in the Agrotowns that compose the SDC and their agricultural fields should be done by bicycle or on foot, in order to economize. A prerequisite for this is that the fields shall be located within easy reach. It is proposed as a norm that the furthest corners of the agricultural fields are not to be located more than 3 kilometers from the housing centers of the Agrotowns. The Central Towns in the SDC are to be located no more than 6 kilometers from the housing centers of the Agrotowns. A model of the proposed SDC can be seen in Graphic 1, expanded outside the circle of the large model.

5. The limitations with respect to transport inside the SDC will determine their size. If an Agrotown is to have a radius of 3 kilometers, then its extension will be 2,820 hectares and 282 families will live in each Agrotown. Each agrotown will thus have 1,690 persons with an average of 6 persons per family. With an average of two working persons per family, then about 500 persons will be workers in each Agrotown.

Central Towns for the SDC are proposed all existing towns between 10 and 30,000 inhabitants. Urban areas are those centers larger than 30,000.

The Central Towns of the SDC are to be located at a distance of no more than 6 kilometers from the housing centers of the Agrotowns.

6. A typical SDC will have about 6 Agrotowns with a total population of 10,000 and a Central Town with a population between 10 and 30,000.

The population of a SDC will thus variate between 20,000 and 40,000 inhabitants.

7. The SDC are to be located in agricultural lands that are to be acquired by the government from the latifundia farms through the land reform programmes.

Even if land is divided between the families, cultivation and other main activities are proposed to be done in group. Some of the main interesting communal activities are, for example, those of the "Moshav" settlements in Israel, as described by Johnson:

"... the moshav is a 'cooperative village'. Up to 150 farm family units make up a community, one in which each family lives in its own house and works its own fields. But although each farmer is an entrepreneur who manages his farm independently, all purchases of inputs (seeds, implements, and other farm supplies) are made through a cooperative society, and all farm produce is marketed by the society. As in the Danish system, the village cooperative societies (which are multipurpose) are federated with nation-wide cooperative societies so arranged that there are separate societies for particular functions. The location of all cooperative villages as well as the major productive purpose they are to perform (e.g. mixed farming, industrial crops) are matters decided upon by the national Central Planning Authority. This supervision is legally possible because moshav

land is nationally owned, although it is rented to participating farmers on long leases. The leases forbid fragmentation of holdings and stipulate the proper type of crop rotation, the arrangements for irrigation water, and other technical requirements. Plots of land are laid down in such a way that they are parts of larger contiguous areas, to make possible large-scale, cooperative, mechanized operations."¹⁾

These types of settlements are very important as an example for the Colombian case. In our case, due to the scarcity of private tools for each peasant, and due to the need of common gathering of the labour force in the slack seasons in order to create the necessary services and infrastructure for the Agrotowns, there is need for a common gathering of labour inputs also in the case of pure agricultural tasks.

The example given of the "moshav" settlements is, however, distinct of the development of the rural areas through creation of "functional economic areas" by "a gradual but well planned sequence of changes", according to Johnson.²⁾ He distinguishes between three ways of rural development: first on a peasant-plantation basis, second through cooperative or collective organizations, and third through the creation of functional economic areas. The moshav settlements belong to the second category, the cooperative settlements. The functional areas are less formally integrated. But their elements are very important too. In the functional areas we propose for Colombia, the SDC, we propose the type of settlements of the "moshav", plus the elements of the functional areas as described by Johnson:

"These critical inputs, fertilizers, pesticides, tools, implements, improved seeds, irrigation water, which can so markedly improve productivity, simply will not be available unless a 'progressive rural structure' is brought into existence. This process of change involves the interdependence of at least five basic elements which are needed to create a 'functional economic area'. There must be (1) a market center that will provide an outlet for farm produce and make available the critical inputs that farmers need. Yet market centers can have little or no influence unless there are (2) roads connecting farms to these market centers. But markets and roads are not enough. Farm products must be adapted to consumer wants, and this will necessitate (3) local verification trials of improved farm practices. Real progress will involve the utilization of the best available scientific knowledge, which will call for (4) the services of agricultural experts and experience has shown that guidance can best be made available by means of an agricultural extension service. Lastly, improved agricultural technology will require certain types of investment, and this, in turn, will make necessary (5) some suitable form of farm production credit. 'All the five basic elements are so highly complementary that' there is little point in improving market outlets for farm products unless there are locally proved methods of improving production (local verification trials unless the farm supplies and equipment needed to increase production are locally available. Improving roads has little consequence unless there are services nearby which ... can lead to increased production. All extension service is of

1) Ibid., p. 204.

2) Ibid., p. 199.

minimum effectiveness except in localities where the other four elements are present."¹⁾

If we revise carefully the contents of the "moshav" settlements, and compare them with the "functional economic areas" as proposed by Johnson, we may find that they are potentially complementary and fit to each other. We think both models can be united into our proposed Small Development Centers.

1.2.3 Main Proposals at the Urban Areas Level

Creation of the SDC will bring a very great transformation of the internal structure of every one of the urban areas, and also of the structure of the local, subregional, and regional urban areas as a system, their rural hinterlands included.

A comparison of the main visualized changes that are expected to happen with the coming-into-being of the SDC, and that will affect and transform the existing system of urban areas is presented in Graphic 1. The most important innovations are:

1. Permanent disappearance of the large numbers of unemployed in the urban areas.
2. Disappearance of the rural unemployed in the minifundia settlements in the hinterland of the urban areas.
3. Disappearance of the slum areas from the urban areas.
4. Disappearance of the large, unused latifundia, from the rural hinterland.
5. Appearance of a clear hierarchical interdependence among the different nodes and linkages of the urban structure. This important innovation will bring about that the many different types of scarce resources that are concentrated in the regional urban centers can be directed to serve lower in the hierarchy urban places and their new very important SDC in the hinterlands.
6. Creation of very active hinterlands around the different urban areas. These hinterlands will not only discongestionate the urban areas but permit them a respite from the continuously increasing need for extending all kinds of expensive infrastructure in their core.

The hinterlands will create at the same time important increases in the demand for goods that the urban areas can produce, enriching the urban economies. There has always existed large demand for goods and services, without existing means of paying for them, as many have been unemployed.

1) Ibid., p.181-2.

Graphic 1.

Model of the Existing System of Urban Areas.

Regional Urban Center

Isolated Subregional

Urban Center

Minifundia

Farms

"Frontier"

Regions

Isolated Local

Urban Area

National

Metropolis

Regional Urban

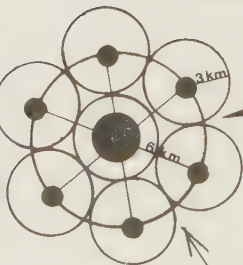
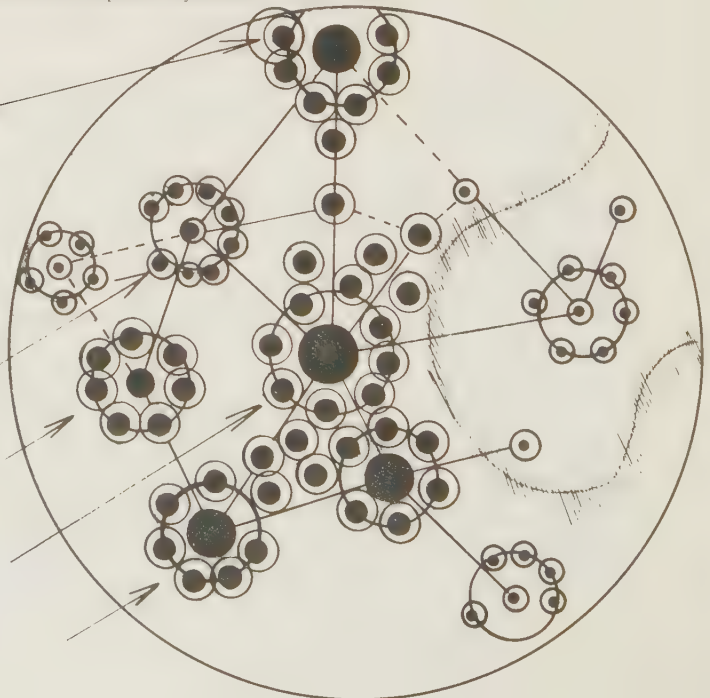
Center

Latifundia Farm

Provisional

Road

Model of the Proposed System of Urban Areas.

Small Development
CenterSDCs Around
Local U.CenterSDCs Around
Subreg.Urban
CenterSDCs Around Nal.
MetropolisSDCs Around Regional
Urban Center

7. It is necessary to create a very efficient system of communications between the urban areas, in order to permit the integration of them. These many new roads are an alternative way of creating jobs, if they are built with labour intensive techniques.

An efficient system of communications between the urban areas will bring about that the specialized services of these areas can be taken in a mobile and periodical way to the minor urban areas and to the rural hinterlands, widely extending the ranges of these services.

In this way it will be feasible to cope with the great lack of services in the minor areas. Additionally it will be feasible to substitute the serious lack of means of transport that exist for the people in the countryside, by bringing the services directly to them.

1.2.4 Model of the Spatial Location of the Small Development Centers

A model of the potential location of the SDC in the future has been done - see Map 1 - taking into account the most important determinants that exist at this moment in the countryside. Three very important ones have been taken to propose the place for the Central Towns:

1. Existing towns between 10 and 30,000 inhabitants. There are series of 66 important towns in this category. They have been studied and classified by the National Planning Agency, according to their development with respect to important variables as educational and health services, number of workers and size of the banking operations.

Almost all of these towns are located near to urban areas and almost all of them are located on the major existing roads connecting the cities. These towns are now the most developed centers in the rural areas. They are proposed as first choices for the location of the SDC. Many of them are also located in the central areas of the Andean region, near the worst concentrations of the minifundia farms. In these cases the displacement of the unemployed to these centers does not need to be over large distances.

There are also quite a large number of these towns on the Atlantic coast in areas of latifundia, and warm climates. In such cases, many migrants would have large distances from the Andean areas, and every different climates from the average for the Andean areas. Special attention should thus be given to this problem in the future.

2. New Centers of Settlement Near the Frontier Regions. There are 50 centers of development, all of them away from the existing ways of communication

and near the frontier resource regions. These places have already been tested by the settlers as suitable for agricultural purposes and are proposed here as a second choice for the location of the SDC.

3. Rural Areas with Special Economic Assets. There are about 11 places where large economic investments and resources are found in the countryside without the appearance of centers of population. These areas are also proposed as third choice for the creation of the SDC.

The proposed Central Towns for the SDC are not the only possibilities that exist. Perhaps some of the most important alternatives have been omitted. For example, the series of towns with population between 5 and 10,000. More studies with respect to the different alternatives should be undertaken, before a definitive pattern of rural growth centers is adopted.

1.2.5 Proposed Roads.

A very large programme of road construction is also proposed here in order to unite the most important economic regions that will appear as a result of the creation of the SDC. Some of the proposed roads are of vital importance for the country, for example, the ones to unite the regional urban areas in the Andean region in a more efficient and direct way. Some of the proposed roads are short but difficult paths to unite the SDC to the cities in the Andean region.

The most interesting proposed innovation seems to be a very wide and very easily constructed road ring around the resource frontier regions to unite the proposed SDC. Additionally to open the wide plains of the frontier regions for new settlement, It must be observed that this ring is to be built on plain lands and consequently appears very easy to accomplish.

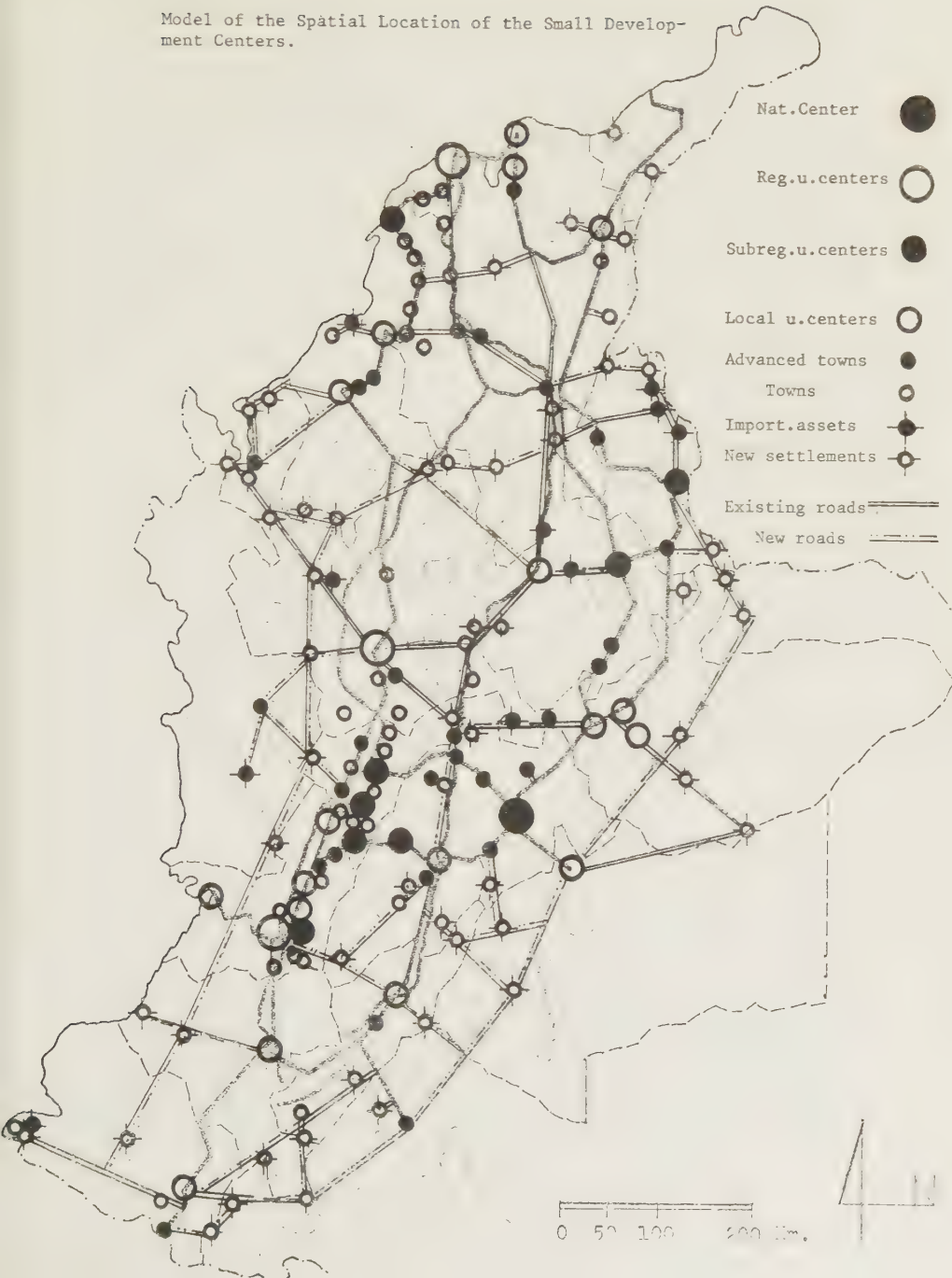
Not all the possible linkages in the system have been proposed, only those we considered of primary importance. However, it is very easy to visualise more and also important linkages as the country develops.

1.3 Complementary Feed-Back Effects at the Set Levels.

This section will show the most important feed-backs that are expected at the set levels from the introduction of the series of innovations proposed to treat the problem of the migration of the unemployed. The sets that are the main determinants of the problem studied are, first demographic growth,

Map 1.

Model of the Spatial Location of the Small Development Centers.



second the social, political and economic internal structure, and third the dependence dimension set.

It is expected that the sets are to be transformed and perhaps deeply changed as a feed-back of the changes we have proposed at the subset level, of which the main proposal is the creation of the SDC and the resettlement of the unemployed.

No important changes can take place at the subset level, if the flows of feed-back are obstructed at the set level. This is perhaps the most important condition for the coming into being of the series of proposals we have made. Due to very important interests that are touched in the process, we estimate the chances of these proposals rather slim, no matter their importance for the country.

1.3.1 Changes at the Demographic Set Level

Success of a programme like that proposed here depends largely upon the introduction of measures that can stop the record-high population growth in the country. The goal should be to plan and establish all kinds of complementary programmes that could pin down the population growth rates from the actual 3.2 per cent to a comfortable 1 per cent, for example. As we have seen before the powerful Catholic Church is the main barrier in this case.

1.3.2 Changes at the Social, Political and Economic Internal Structure Level.

There are two very important feed backs at this level:

1. The ending of the latifundia system with the very wide changes in all the spheres of power for the latifundia owners as a class, is a very important problem of the future.

A very high degree of acceptance by the latifundia owners is necessary if the land reform programmes existent in the country can be transformed from their average of 900 families per year who are getting land to a potential of 250,000 families per year. It is not at all clear that the very strong social, economic and political class that the latifundia owners constitute can be overcome. Moreover, it is not clear at all that the country could cope with such wide resettlements of people which should be continuous

during ten years. Yet the problems we are working with deal with people, and these people are already waiting for the solution to their problems. Although from an objective point of view the problem is out of scale, and too large to be treated, from the humanitarian side hope should not be given up.

2. The second and very important feed-back that is necessary to flow at this level, is the change in the concentration that exists with respect to new investments. Until now it has been the urban areas that have dominated the direction of the main investments, even in the case of housing programmes to eliminate slum areas. It has always been the urban areas, the large ones, the main centers of development.

It is required that in the future the most important assets are used for the people that are going to live in the SDC in the countryside. A list have been made over the main investments that the country needs to make in this case. For each one of these investments complete studies are required to see the ranges of alternatives in existence. The main investments are:

1. A new planning organization required to take care of the coordination of the varied aspects that the SDC represent.

2. A new cooperative organization that takes care of the land redistribution programmes and of the most important economic investments in the SDC.

3. A crash programme for the coordination for the commuting of the technicians between the urban areas where they reside and the countryside where they are to concentrate most of their efforts in the future.

A crash programme is also needed for the training of the necessary teachers, doctors, nurses, agronomists, veterinary, mechanics, cooperative experts, accountants, if the country is to make a large investment in the SDC.

4. Establishment of a new credit bank that can channel the scarce resources of the country, added to those the country can borrow abroad, to be administered to the SDC.

5. Establishment of a series of industrial centers devoted to production of the most important inputs that are to be consumed in the process of agricultural production in the countryside.

6. Establishment of a center for the research and sales on foreign markets of agricultural products and also for research on new products and technologies to be introduced.

1.3.3 Changes at the Dependence Dimension Level.

The most important changes at this level would be the increasing of the interdependence of the country with other underdeveloped and developed countries in order to conduct research in common on the kinds of technologies more appropriate for the backward countries with abundance in labour force and with scarcity of resources. Technology is to be employed in the until now almost unsearched tropical agriculture, and also in the industrial fields. It would be very interesting to see the country engaged in multilateral or multiple ventures with other countries for producing the most important things for the development of the SDC.

In this way, although the technological and economic relations to other countries would be multiplied, it would be in order to help the further development of the country. This aspect would amply contrast with the existing conditions of development in Colombia, where the introduction of technology and capital from other countries, seems to increase the dependence without increasing even the number of jobs or other benefits.

2. Summary

The many changes proposed in this Appendix in order to correct the large disfunctionalities in Colombia, which are producing astonishingly high unemployment rates throughout the country at the same time as the unemployed become concentrated in the urban areas, are only a demonstration of the hard choices that the country will have to make in the future between the deep poverty of the majority, or reforming the majority of the institutions.

The listing of the many changes necessary for a successful development of the proposed programmes, makes most of the sections of this Appendix look like utopian dreams. Moreover, it is also a good show of why it is that a few countries, for example Tanzania, that are employing a large part of their energies to create a series of development centers in the countryside, the Ujamaa villages in this case, have such a hard time to make headways in the process. However, in spite of the hardships and changes that these programmes represent for wide sectors of the population in those countries, it seems one of the few ways to follow in the future, even if the final results are totally uncertain.

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